FIG. 1

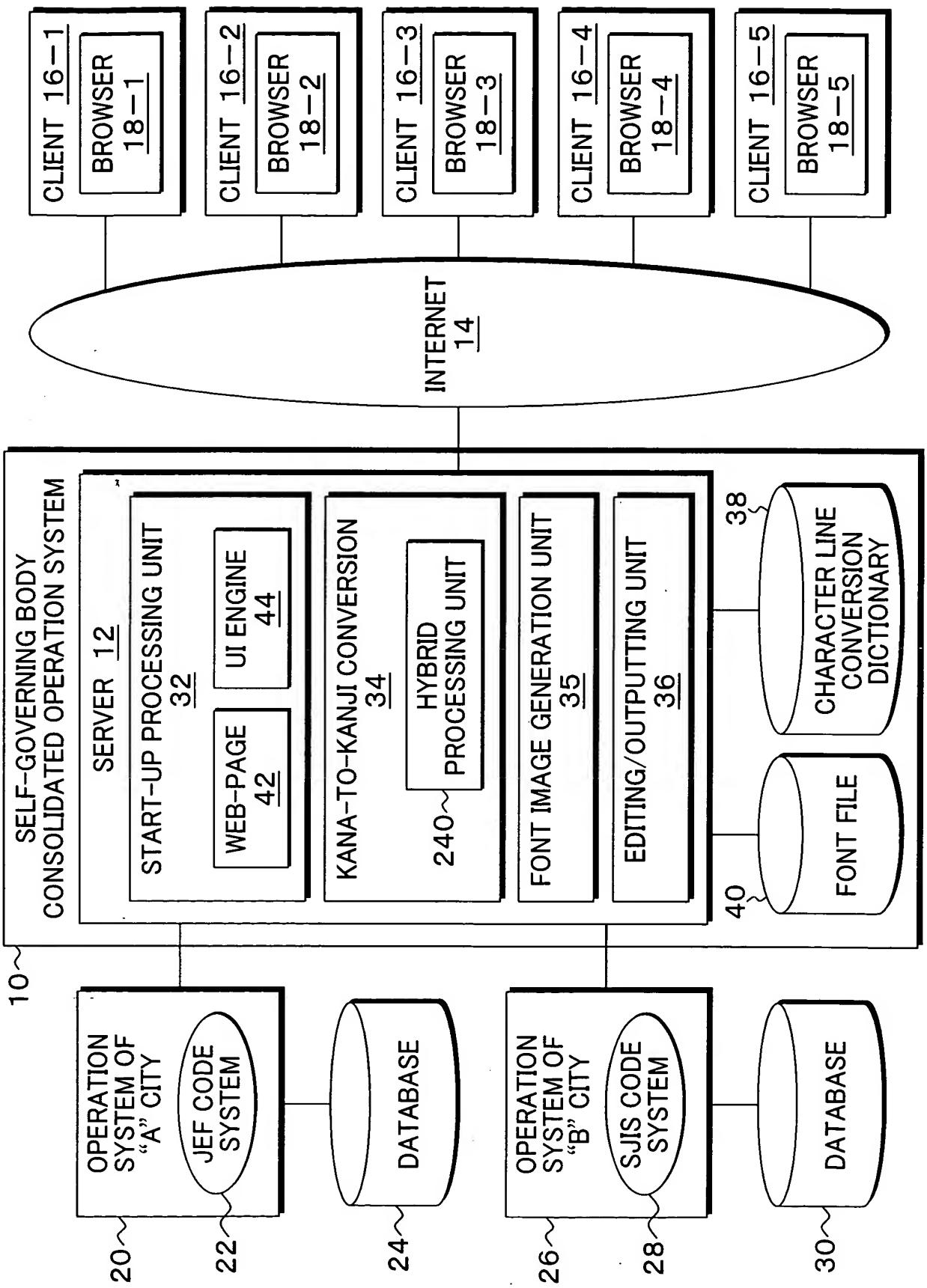

CLIENT 16-1
BROWSER 18-1
CLIENT 16-2
BROWSER 18-2
CLIENT 16-3
BROWSER 18-3
CLIENT 16-4
BROWSER 18-4
CLIENT 16-5
BROWSER 18-5
INTERNET 14
SELF-GOVERNING BODY CONSOLIDATED OPERATION SYSTEM
10
SERVER 12
START-UP PROCESSING UNIT 32
WEB-PAGE 42
UI ENGINE 44
KANA-TO-KANJI CONVERSION 34
HYBRID PROCESSING UNIT
240
FONT IMAGE GENERATION UNIT 35
EDITING/OUTPUTTING UNIT 36
38
CHARACTER LINE CONVERSION DICTIONARY
40
FONT FILE
OPERATION SYSTEM OF "A" CITY
20
JEF CODE SYSTEM
22
DATABASE
24
OPERATION SYSTEM OF "B" CITY
26
SJIS CODE SYSTEM
28
DATABASE
30

FIG. 2

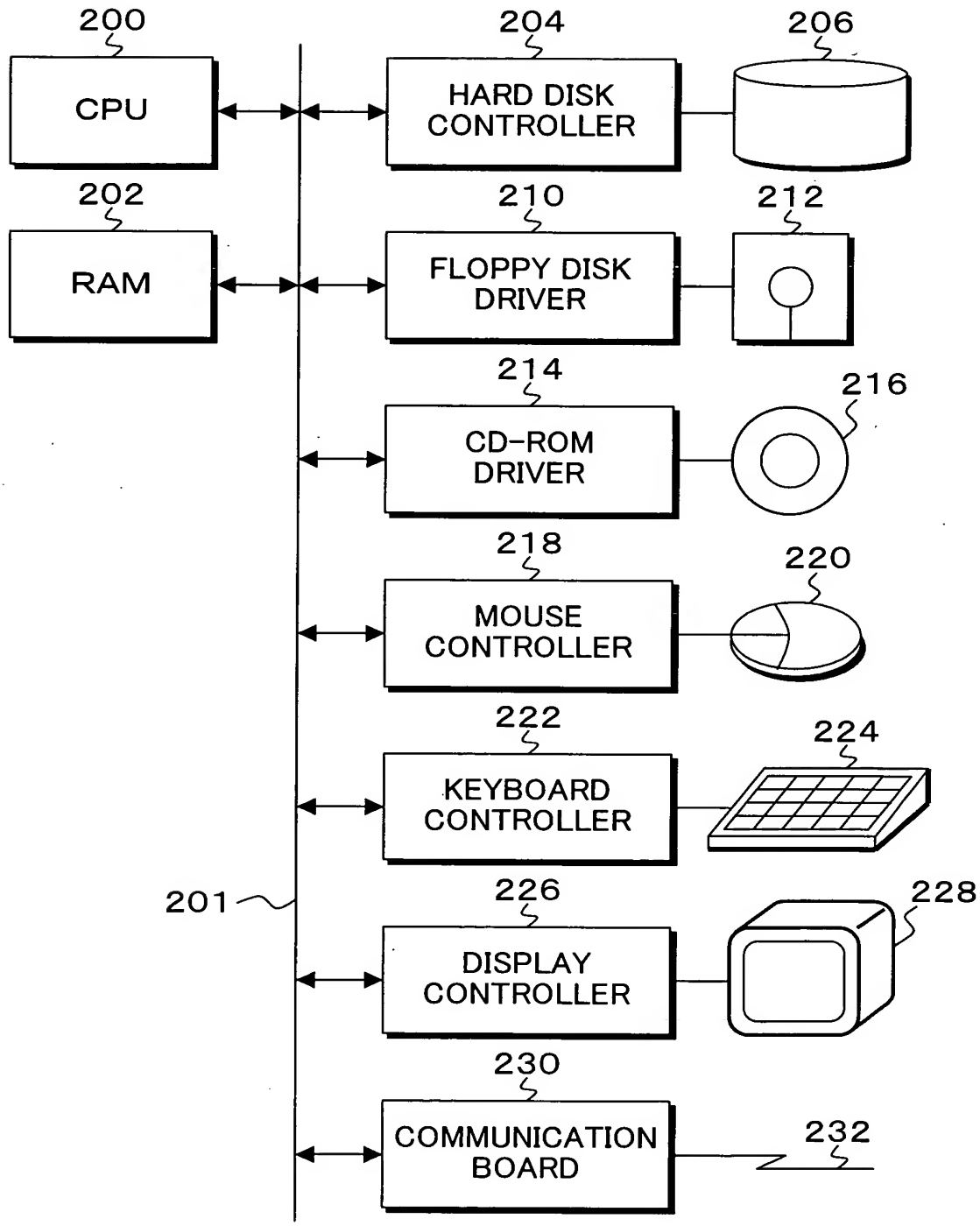

200
CPU
202
RAM
204
HARD DISK CONTROLLER
206
210
FLOPPY DISK DRIVER
212
214
CD-ROM DRIVER
216
218
MOUSE CONTROLLER
220
222
KEYBOARD CONTROLLER
224
201
226
DISPLAY CONTROLLER
228
230
COMMUNICATION BOARD
232

FIG. 3

38

46

50 READING	52 TYPE	54 NOTATION	56 INTERMEDIATE CODE
A	NOUN	亜	00000122
YOSHI	NOUN	余資	00000067,00000089
YOSHIDA	NAME	吉田	00000012,00000024
YOSHIDA	NAME	吉田	00000013,00000024
YOSHIDA	NAME	芳田	00000015,00000024
YOSHIDA	NAME	葭田	00000018,00000024
YOSHIZU	NAME	吉津	00000012,00000046

48

56 INTERMEDIATE CODE	58 CHARACTER	60 SJIS	62 JEF	64 OTHERS
00000001	あ	1234	2345	00000122
00000012	吉	1423	2573	00000067,00000089
00000013	吉		7354	00000012,00000024
00000014	由	3543	6211	00000013,00000024
00000015	芳	1899	6214	00000015,00000024
00000016	葦	5058	1735	00000018,00000024
00000017	佳	5342	9354	00000012,00000046

FIG. 4

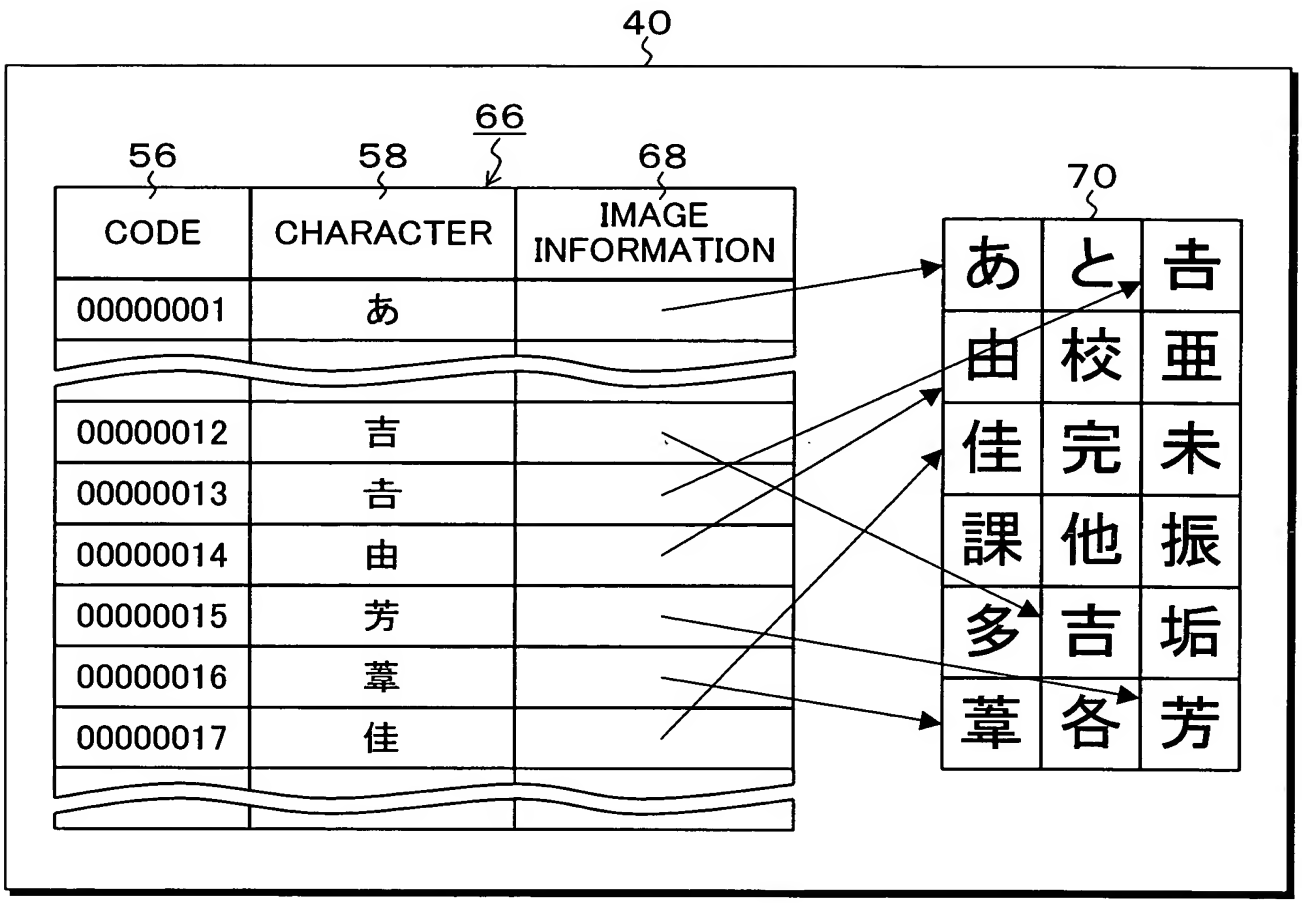

40
66
56
58
68
70
CODE
CHARACTER
IMAGE INFORMATION
00000001
あ
00000012
吉
00000013
吉
00000014
由
00000015
芳
00000016
葦
00000017
佳
あ と 吉
由 校 亜
佳 完 未
課 他 振
多 吉 垢
葦 各 芳

FIG. 5

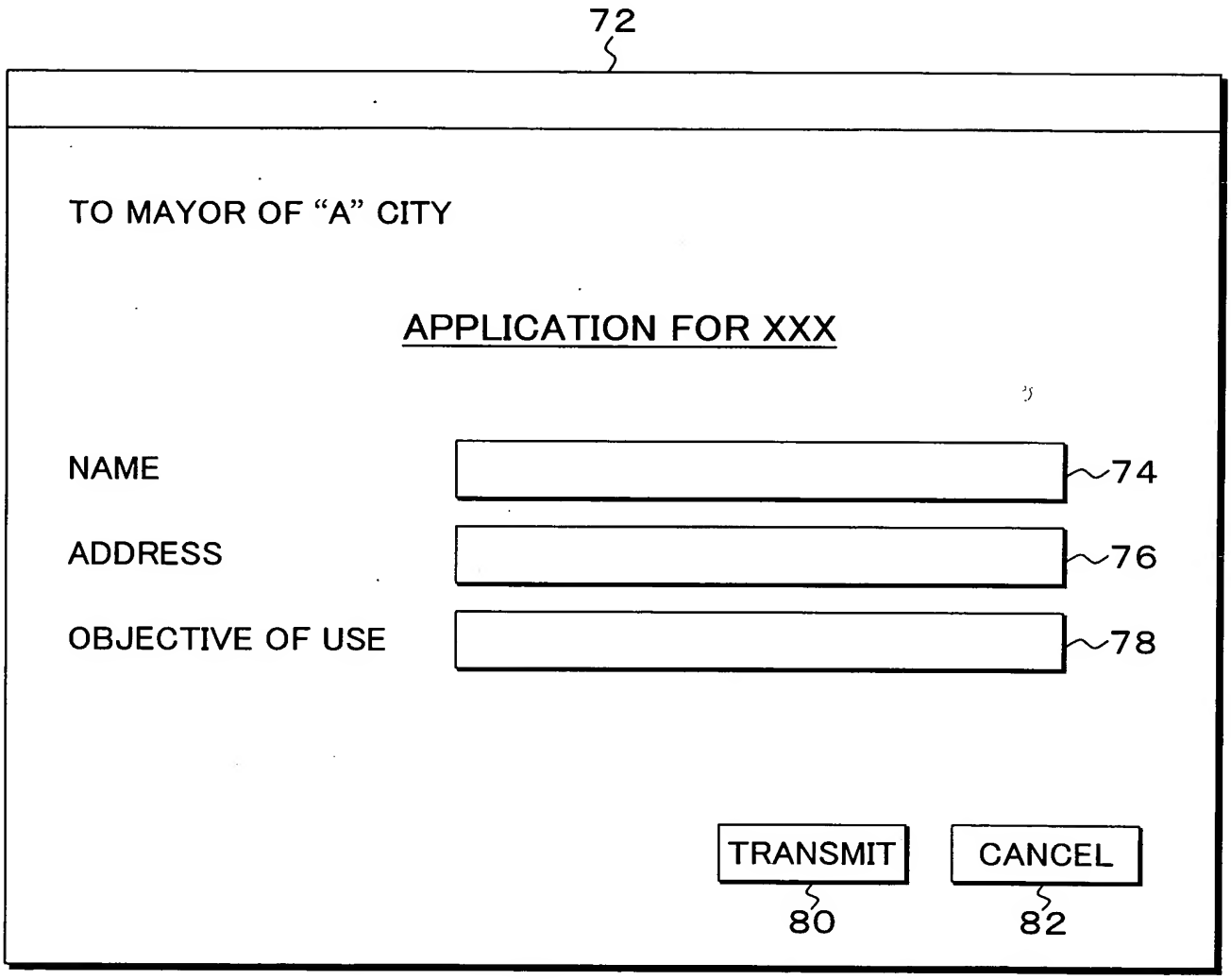

72
TO MAYOR OF "A" CITY
APPLICATION FOR XXX
NAME
74
ADDRESS
76
OBJECTIVE OF USE
78
TRANSMIT
CANCEL
80
82

FIG. 6A

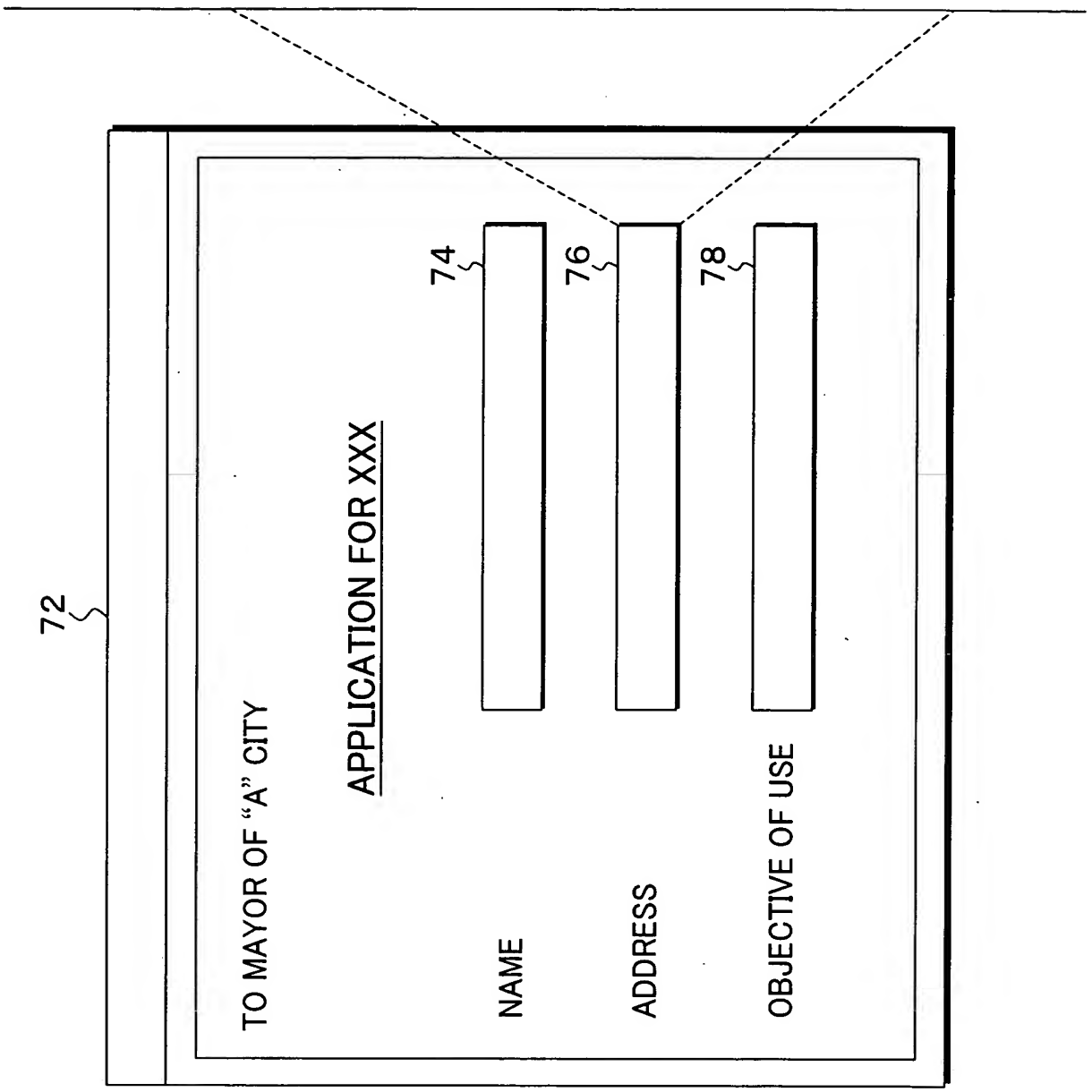

72
TO MAYOR OF "A" CITY
APPLICATION FOR XXX
74
NAME
76
ADDRESS
78
OBJECTIVE OF USE

FIG. 6B

84

ATTRIBUTE	DESCRIPTION
EDITABLE FLAG	A NORMAL INPUT FIELD FOR "TRUE" AND A FIXED CHARACTER DISPLAY FIELD FOR "FALSE".
NAME OF ITEM	NAME OF ITEMS WHEN FORM IS TRANSMITTED.
DOUBLE INDEX	AMOUNT OF INDEX
INSCRIBED TEXT	CHARACTER LINE DISPLAYED FOR A NON-EDITABLE CASE AND DEFAULT INPUT CHARACTER LINE FOR AN EDITABLE CASE.
DICTIONARY TYPE	A KANA-TO-KANJI DICTIONARY SUCH AS A NAME DICTIONARY AND AN ADDRESS DICTIONARY IS DESIGNATED.
INPUTTED FONT SIZE	FONT SIZE TO BE DISPLAYED OF INPUTTED CHARACTER LINES IS DESIGNATED.
LISTED FONT SIZE	FONT SIZE OF CANDIDATE CHARACTERS DISPLAYED AS A CONVERSION LIST IS DESIGNATED.
SETTING OF LONGEST CHARACTER LINE LENGTH	LONGEST CHARACTER LENGTH CAPABLE OF BEING INPUTTED IS DESIGNATED.
GRID DISPLAYED	WHETHER GRID IS DISPLAYED OR NOT IS DESIGNATED.
CHARACTER CODE	CODE SYSTEM TO BE OUTPUTTED IS DESIGNATED.

FIG. 7A

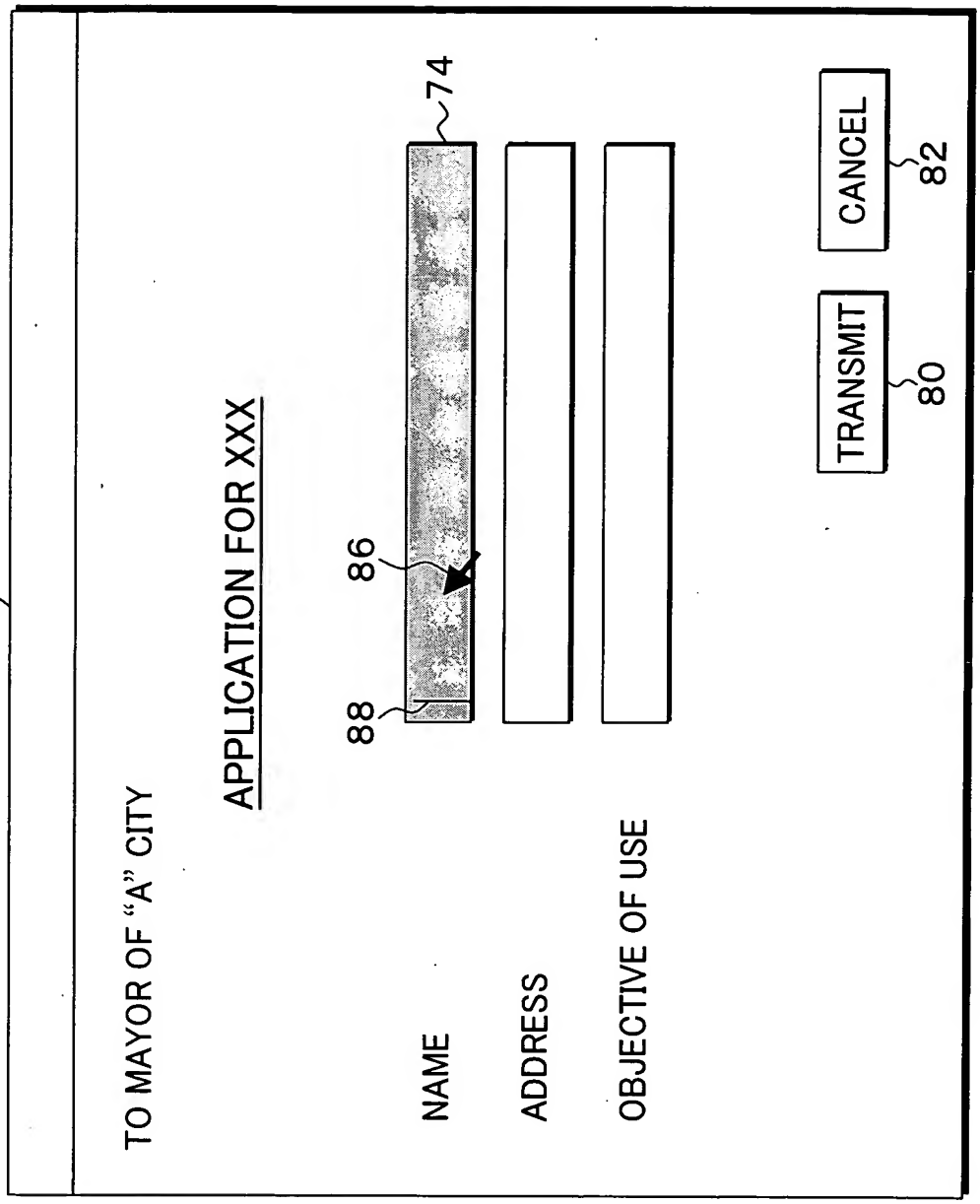

72
TO MAYOR OF "A" CITY
APPLICATION FOR XXX
74
86
88
NAME
ADDRESS
OBJECTIVE OF USE
TRANSMIT
80
CANCEL
82

FIG. 7B

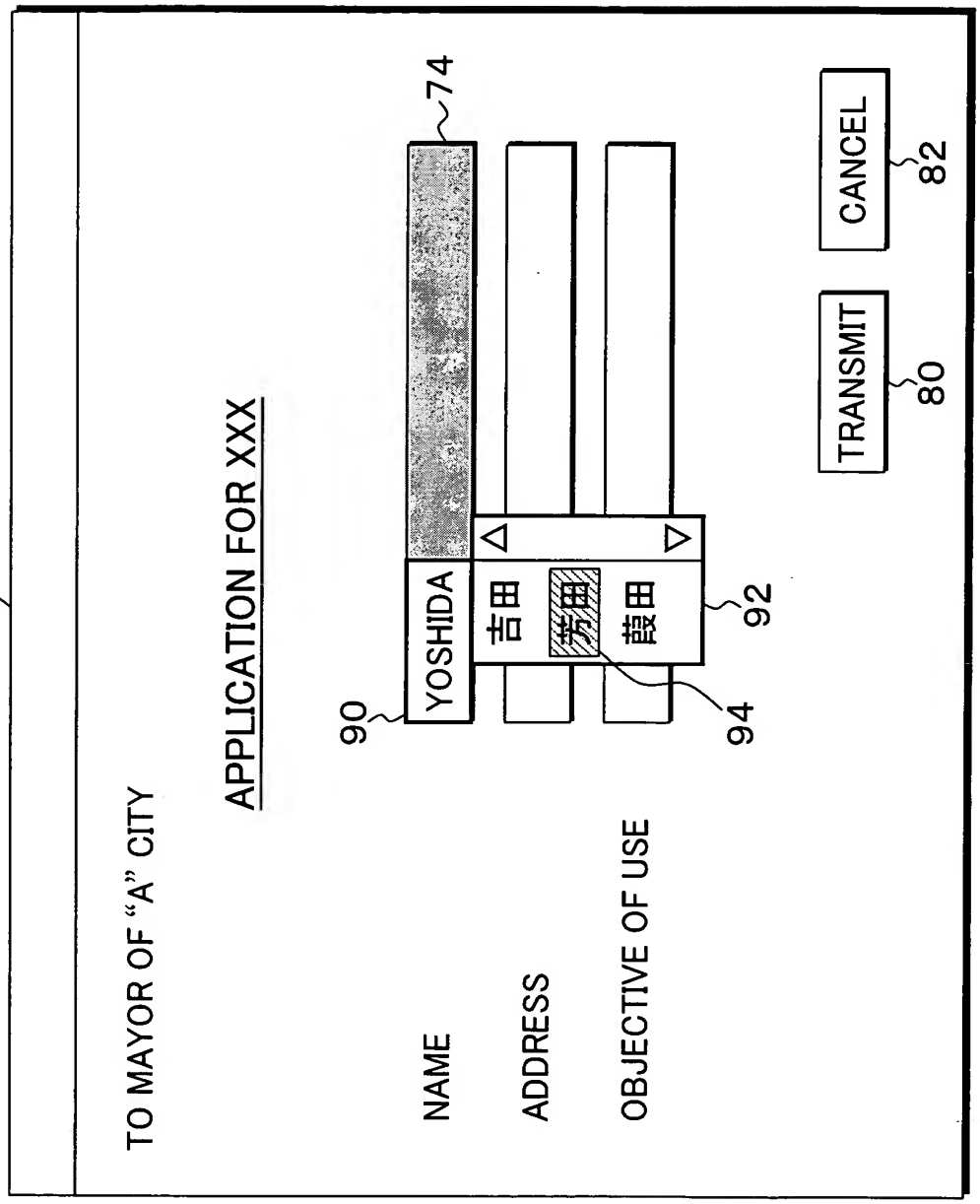

72
TO MAYOR OF "A" CITY
APPLICATION FOR XXX
NAME
ADDRESS
OBJECTIVE OF USE
YOSHIDA
吉田
芳田
鼓田
90
92
94
74
TRANSMIT
80
CANCEL
82

FIG. 8A

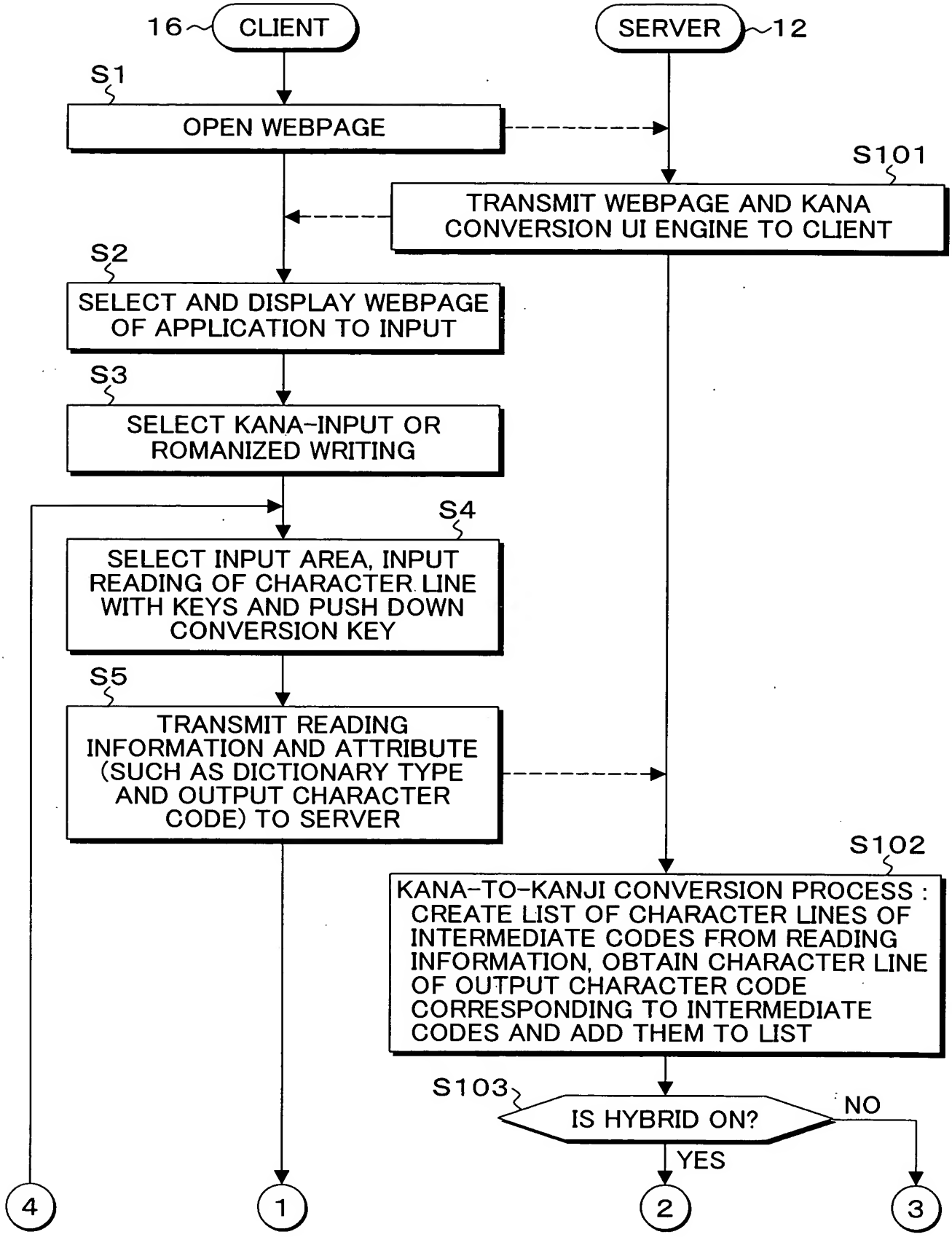

16
CLIENT
SERVER
12
S1
OPEN WEBPAGE
S101
TRANSMIT WEBPAGE AND KANA CONVERSION UI ENGINE TO CLIENT
S2
SELECT AND DISPLAY WEBPAGE OF APPLICATION TO INPUT
S3
SELECT KANA-INPUT OR ROMANIZED WRITING
S4
SELECT INPUT AREA, INPUT READING OF CHARACTER LINE WITH KEYS AND PUSH DOWN CONVERSION KEY
S5
TRANSMIT READING INFORMATION AND ATTRIBUTE (SUCH AS DICTIONARY TYPE AND OUTPUT CHARACTER CODE) TO SERVER
S102
KANA-TO-KANJI CONVERSION PROCESS : CREATE LIST OF CHARACTER LINES OF INTERMEDIATE CODES FROM READING INFORMATION, OBTAIN CHARACTER LINE OF OUTPUT CHARACTER CODE CORRESPONDING TO INTERMEDIATE CODES AND ADD THEM TO LIST
S103
IS HYBRID ON?
NO
YES
4
1
2
3

FIG. 8B

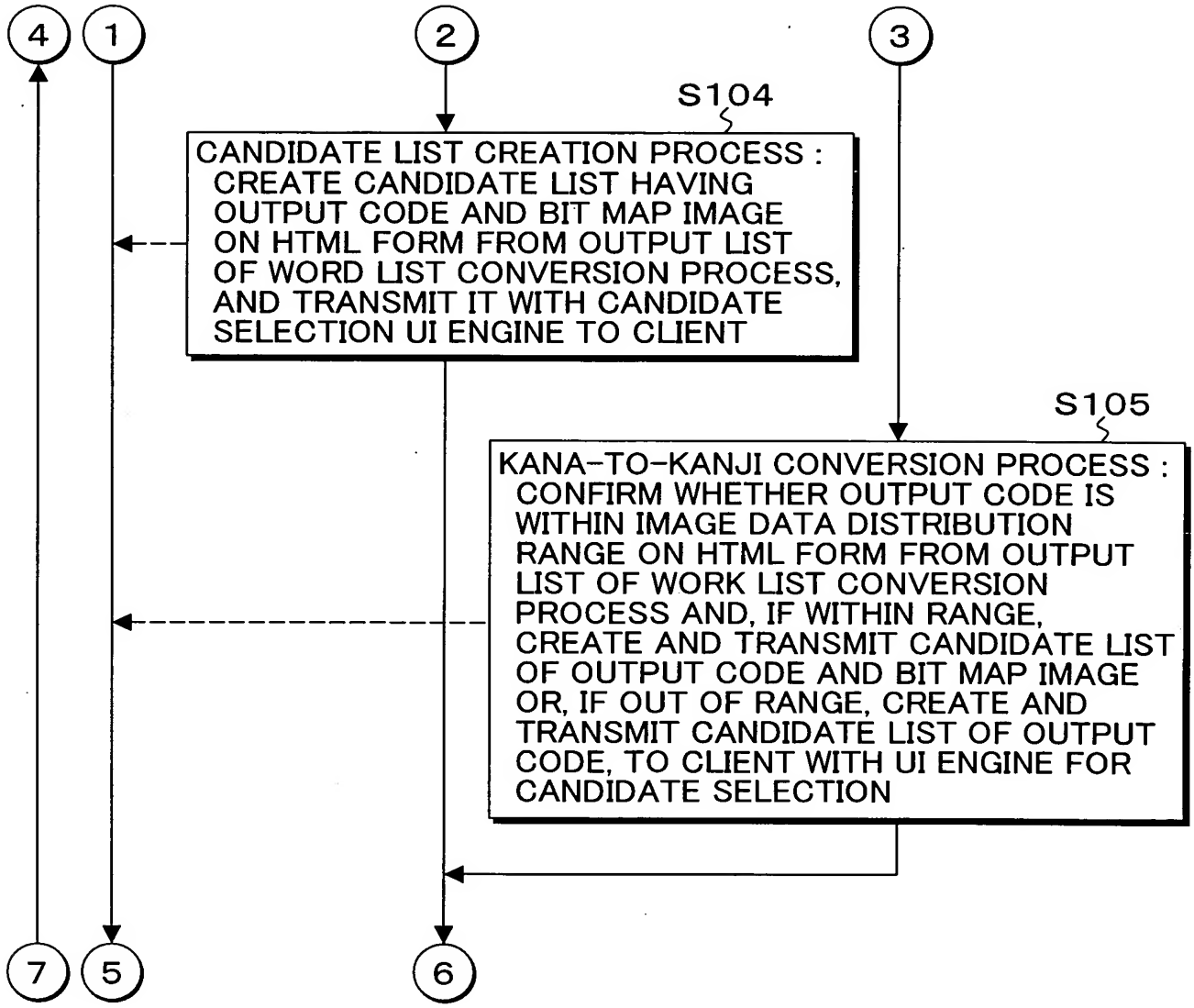

4
1
2
3
S104
CANDIDATE LIST CREATION PROCESS : CREATE CANDIDATE LIST HAVING OUTPUT CODE AND BIT MAP IMAGE ON HTML FORM FROM OUTPUT LIST OF WORD LIST CONVERSION PROCESS, AND TRANSMIT IT WITH CANDIDATE SELECTION UI ENGINE TO CLIENT
S105
KANA-TO-KANJI CONVERSION PROCESS : CONFIRM WHETHER OUTPUT CODE IS WITHIN IMAGE DATA DISTRIBUTION RANGE ON HTML FORM FROM OUTPUT LIST OF WORK LIST CONVERSION PROCESS AND, IF WITHIN RANGE, CREATE AND TRANSMIT CANDIDATE LIST OF OUTPUT CODE AND BIT MAP IMAGE OR, IF OUT OF RANGE, CREATE AND TRANSMIT CANDIDATE LIST OF OUTPUT CODE, TO CLIENT WITH UI ENGINE FOR CANDIDATE SELECTION
7
5
6

FIG. 8C

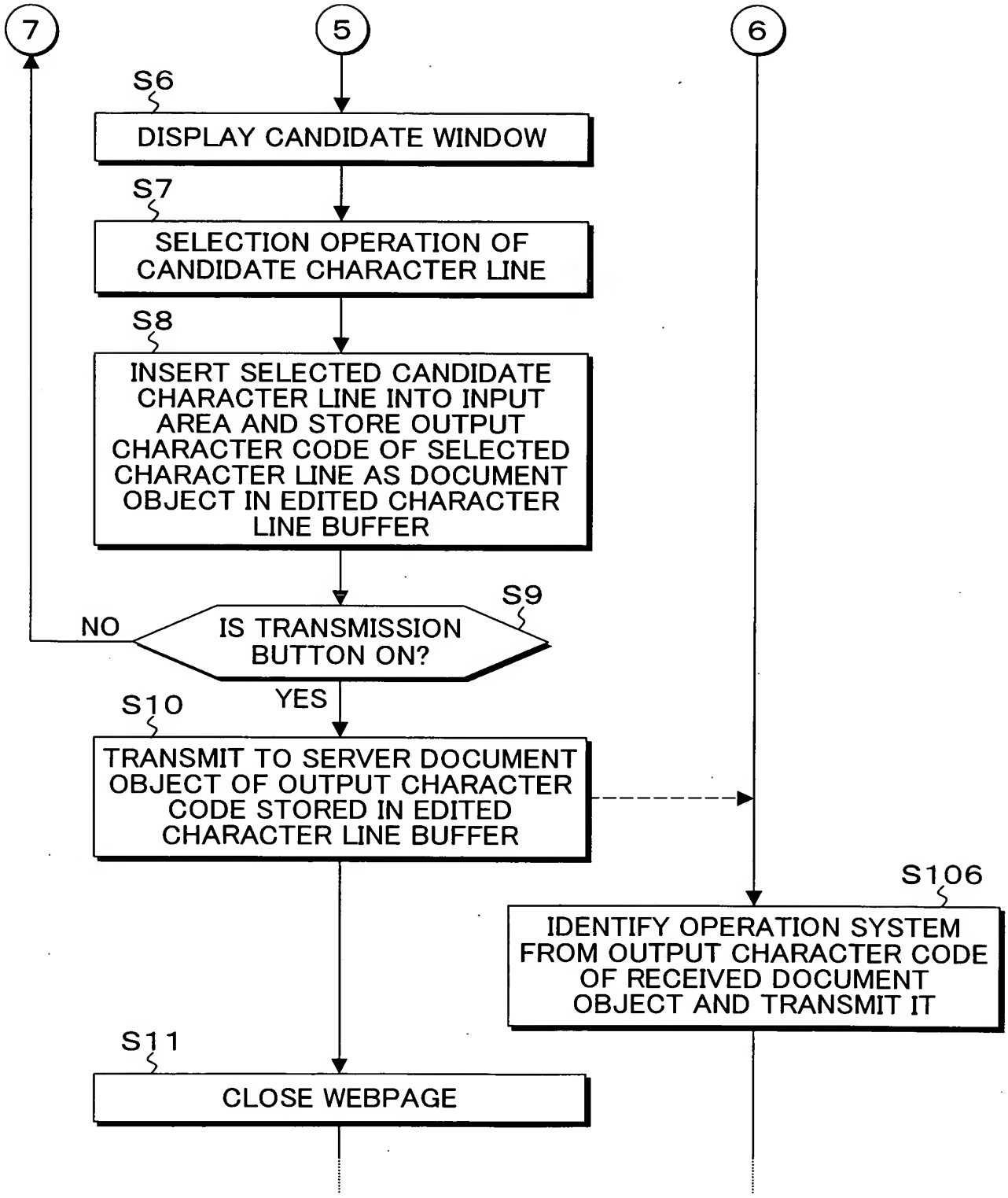

7
5
6
S6
DISPLAY CANDIDATE WINDOW
S7
SELECTION OPERATION OF CANDIDATE CHARACTER LINE
S8
INSERT SELECTED CANDIDATE CHARACTER LINE INTO INPUT AREA AND STORE OUTPUT CHARACTER CODE OF SELECTED CHARACTER LINE AS DOCUMENT OBJECT IN EDITED CHARACTER LINE BUFFER
S9
IS TRANSMISSION BUTTON ON?
NO
YES
S10
TRANSMIT TO SERVER DOCUMENT OBJECT OF OUTPUT CHARACTER CODE STORED IN EDITED CHARACTER LINE BUFFER
S106
IDENTIFY OPERATION SYSTEM FROM OUTPUT CHARACTER CODE OF RECEIVED DOCUMENT OBJECT AND TRANSMIT IT
S11
CLOSE WEBPAGE

FIG. 9

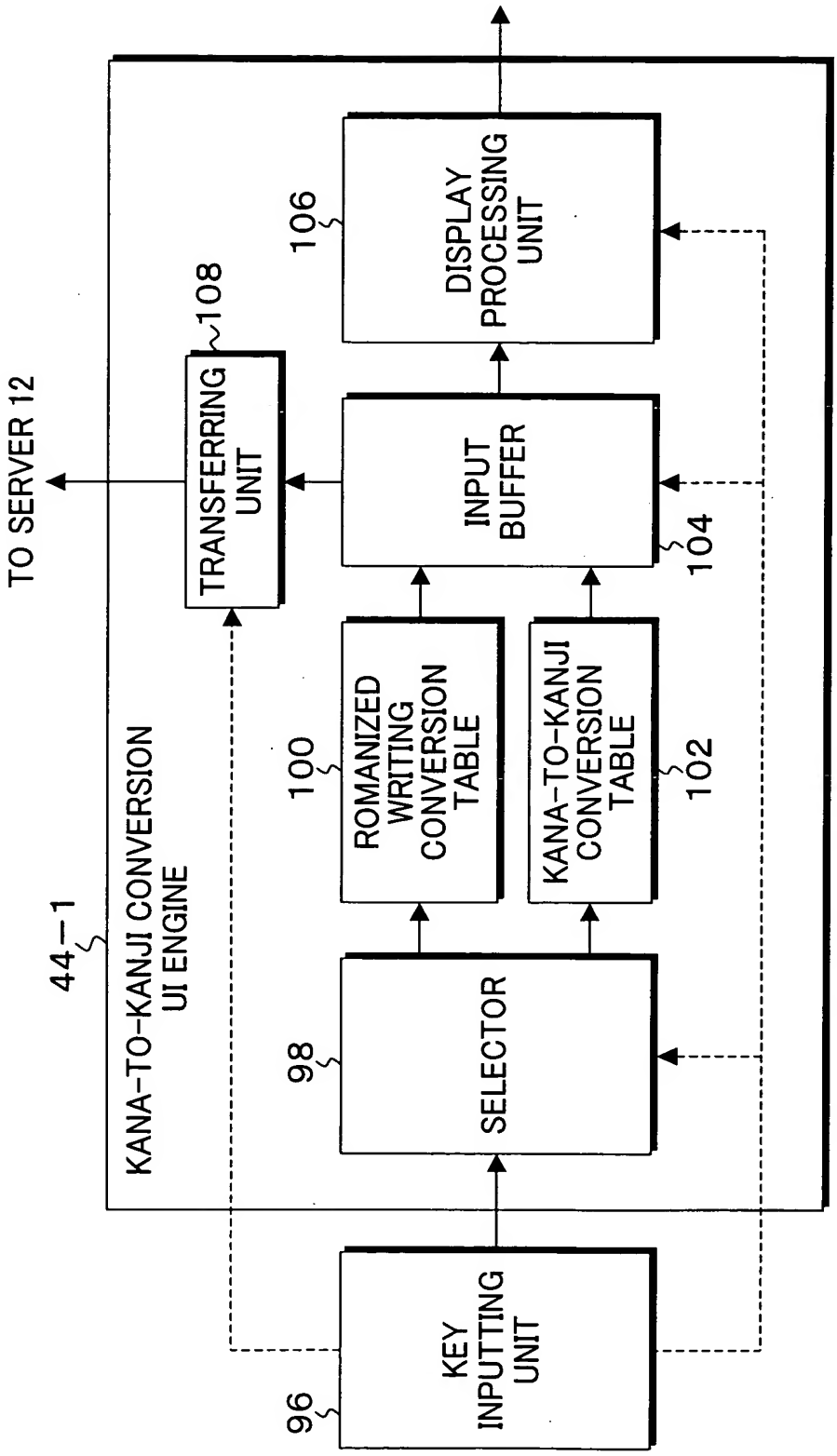

KANA-TO-KANJI CONVERSION UI ENGINE
44-1
TO SERVER 12
TRANSFERRING UNIT
108
INPUT BUFFER
104
DISPLAY PROCESSING UNIT
106
ROMANIZED WRITING CONVERSION TABLE
100
KANA-TO-KANJI CONVERSION TABLE
102
SELECTOR
98
KEY INPUTTING UNIT
96

FIG. 10

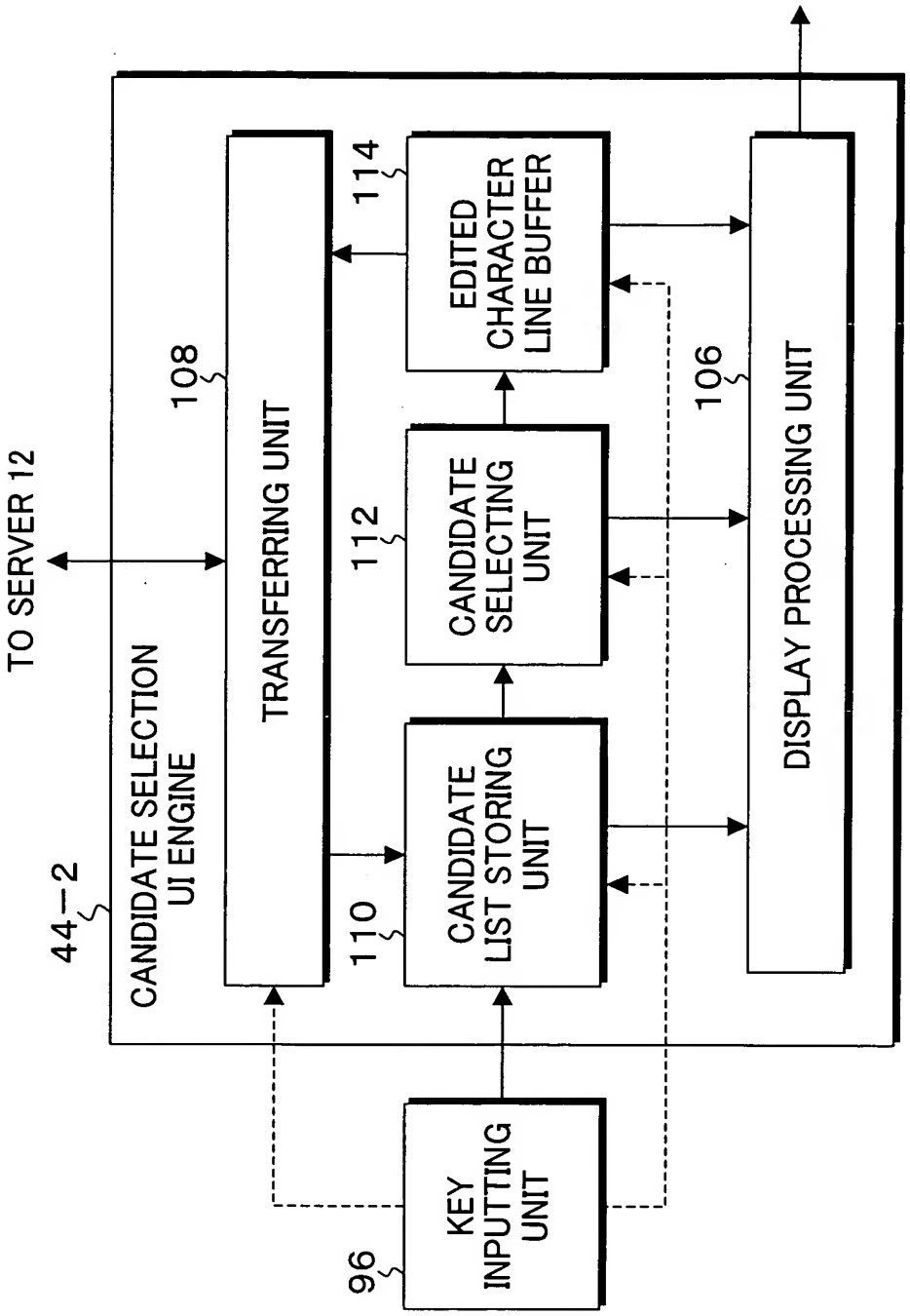

TO SERVER 12
44-2
CANDIDATE SELECTION UI ENGINE
TRANSFERRING UNIT
108
EDITED CHARACTER LINE BUFFER
114
CANDIDATE SELECTING UNIT
112
CANDIDATE LIST STORING UNIT
110
DISPLAY PROCESSING UNIT
106
KEY INPUTTING UNIT
96

FIG. 11

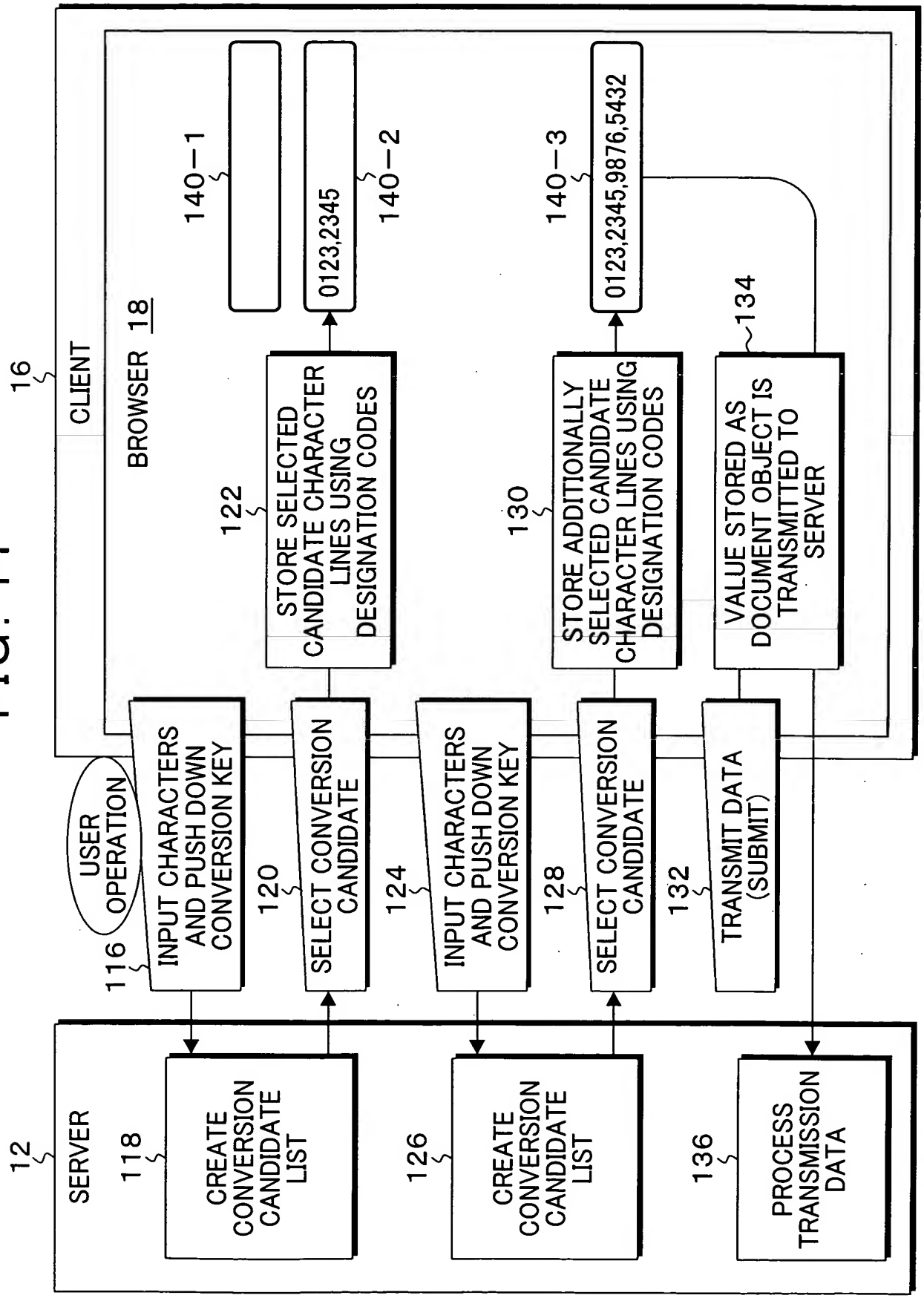

12
SERVER
118
CREATE CONVERSION CANDIDATE LIST
126
CREATE CONVERSION CANDIDATE LIST
136
PROCESS TRANSMISSION DATA
16
CLIENT
BROWSER 18
USER OPERATION
116
INPUT CHARACTERS AND PUSH DOWN CONVERSION KEY
120
SELECT CONVERSION CANDIDATE
124
INPUT CHARACTERS AND PUSH DOWN CONVERSION KEY
128
SELECT CONVERSION CANDIDATE
132
TRANSMIT DATA (SUBMIT)
122
STORE SELECTED CANDIDATE CHARACTER LINES USING DESIGNATION CODES
130
STORE ADDITIONALLY SELECTED CANDIDATE CHARACTER LINES USING DESIGNATION CODES
134
VALUE STORED AS DOCUMENT OBJECT IS TRANSMITTED TO SERVER
140-1
140-2
0123,2345
140-3
0123,2345,9876,5432

FIG. 12

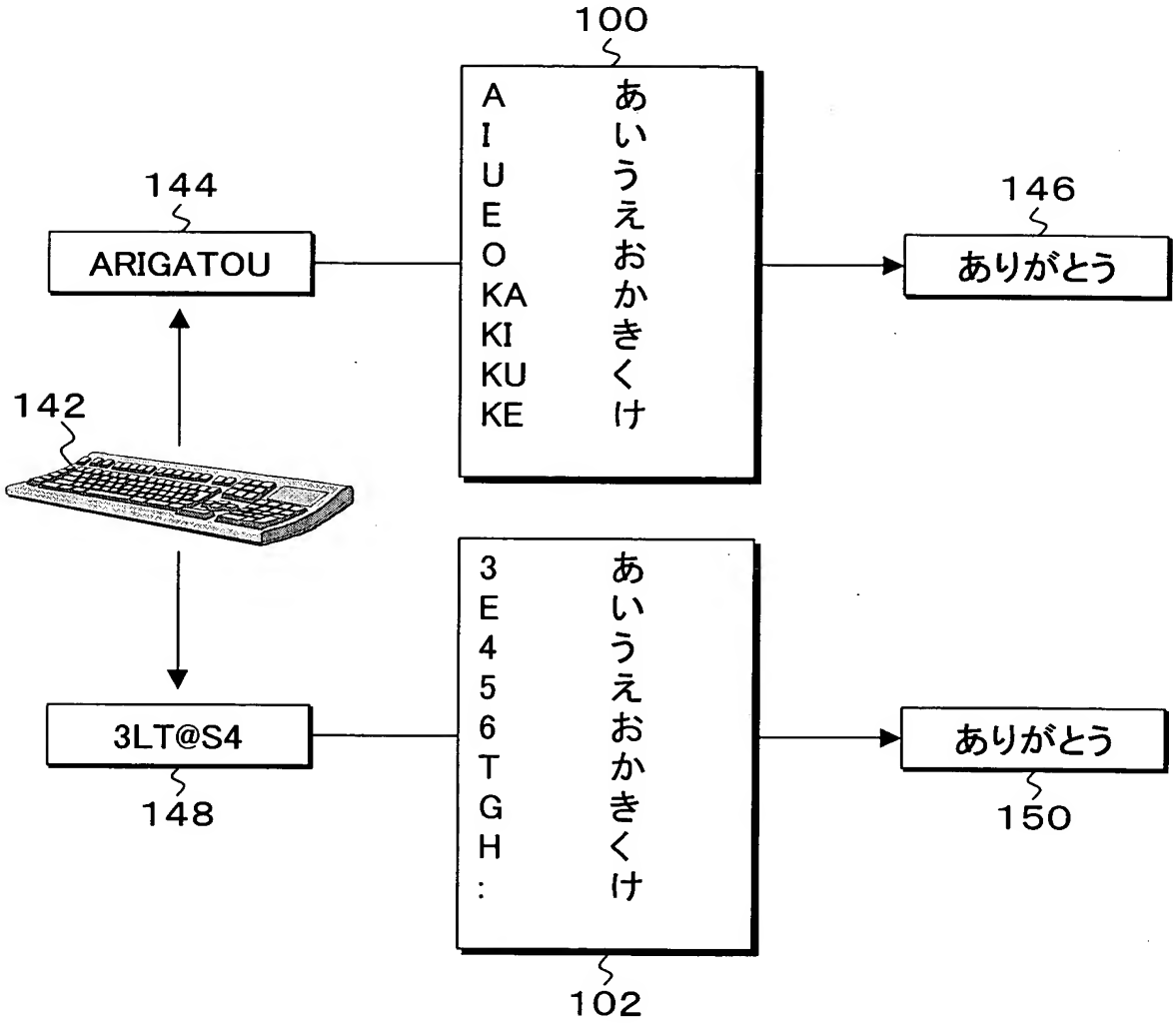

100
A あ
I い
U う
E え
O お
KA か
KI き
KU く
KE け
144
ARIGATOU
146
ありがとう
142
3 あ
E い
4 う
5 え
6 お
T か
G き
H く
: け
3LT@S4
148
ありがとう
150
102

FIG. 13A

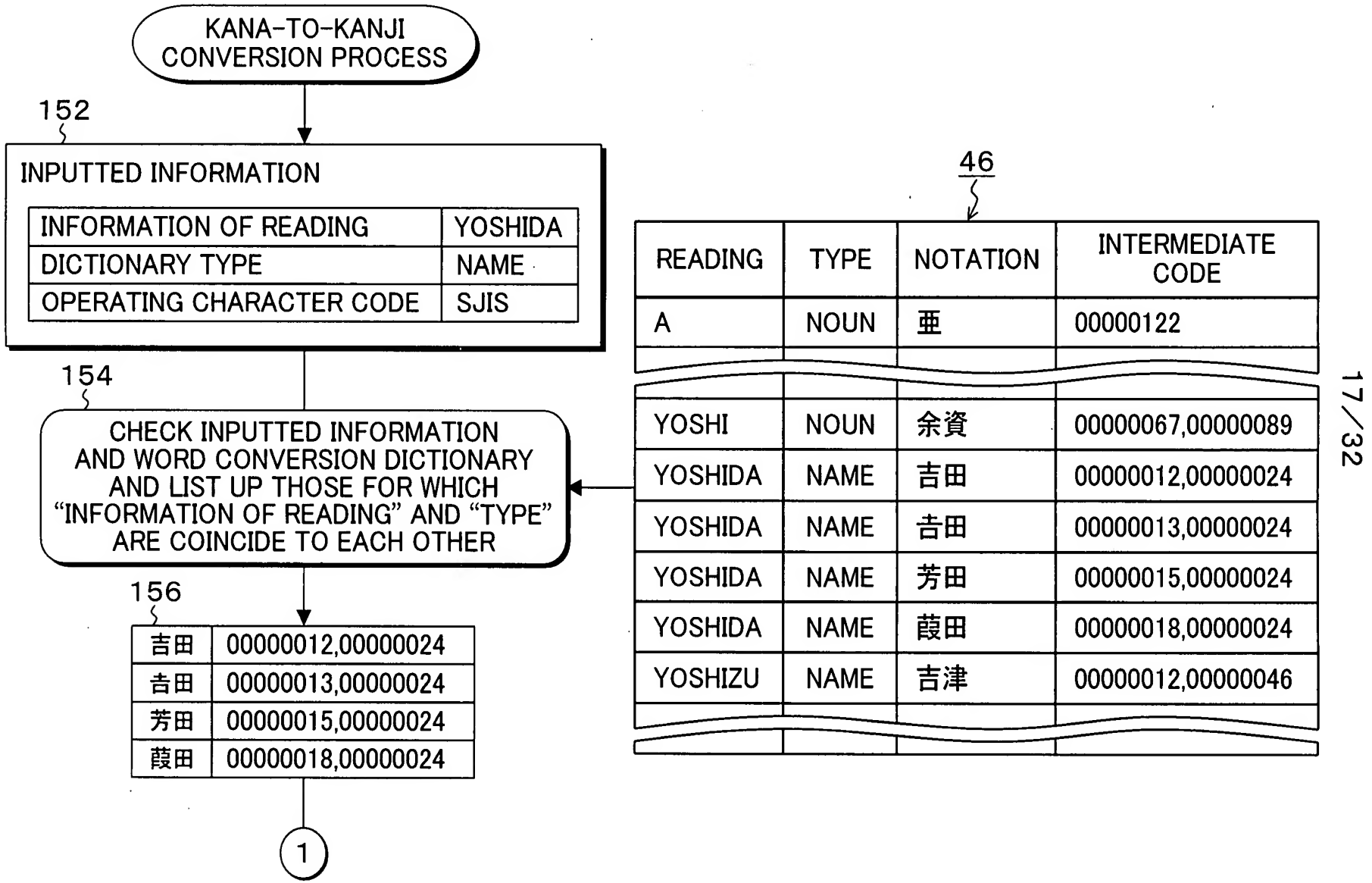

KANA-TO-KANJI CONVERSION PROCESS
152
INPUTTED INFORMATION
INFORMATION OF READING
YOSHIDA
DICTIONARY TYPE
NAME
OPERATING CHARACTER CODE
SJIS
154
CHECK INPUTTED INFORMATION AND WORD CONVERSION DICTIONARY AND LIST UP THOSE FOR WHICH "INFORMATION OF READING" AND "TYPE" ARE COINCIDE TO EACH OTHER
156
吉田 00000012,00000024
吉田 00000013,00000024
芳田 00000015,00000024
葭田 00000018,00000024
1
46
READING TYPE NOTATION INTERMEDIATE CODE
A NOUN 亜 00000122
YOSHI NOUN 余資 00000067,00000089
YOSHIDA NAME 吉田 00000012,00000024
YOSHIDA NAME 吉田 00000013,00000024
YOSHIDA NAME 芳田 00000015,00000024
YOSHIDA NAME 葭田 00000018,00000024
YOSHIZU NAME 吉津 00000012,00000046

FIG. 13B

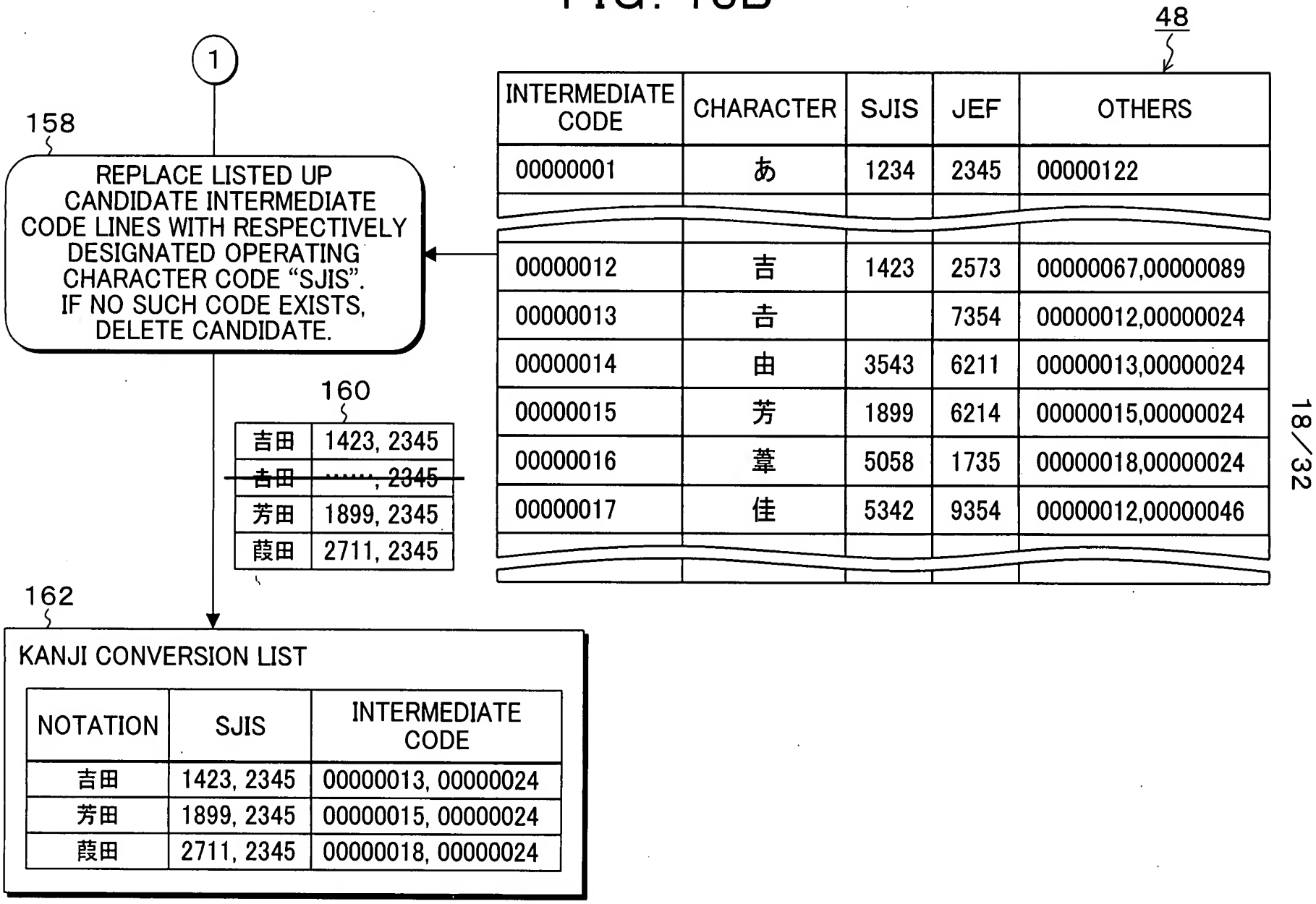

1
158
REPLACE LISTED UP CANDIDATE INTERMEDIATE CODE LINES WITH RESPECTIVELY DESIGNATED OPERATING CHARACTER CODE "SJIS". IF NO SUCH CODE EXISTS, DELETE CANDIDATE.
160
吉田 1423, 2345
~~吉田 ....., 2345~~
芳田 1899, 2345
葭田 2711, 2345
162
KANJI CONVERSION LIST
NOTATION | SJIS | INTERMEDIATE CODE
吉田 | 1423, 2345 | 00000013, 00000024
芳田 | 1899, 2345 | 00000015, 00000024
葭田 | 2711, 2345 | 00000018, 00000024
48
INTERMEDIATE CODE | CHARACTER | SJIS | JEF | OTHERS
00000001 | あ | 1234 | 2345 | 00000122
00000012 | 吉 | 1423 | 2573 | 00000067,00000089
00000013 | 吉 | | 7354 | 00000012,00000024
00000014 | 由 | 3543 | 6211 | 00000013,00000024
00000015 | 芳 | 1899 | 6214 | 00000015,00000024
00000016 | 葦 | 5058 | 1735 | 00000018,00000024
00000017 | 佳 | 5342 | 9354 | 00000012,00000046

FIG. 14A

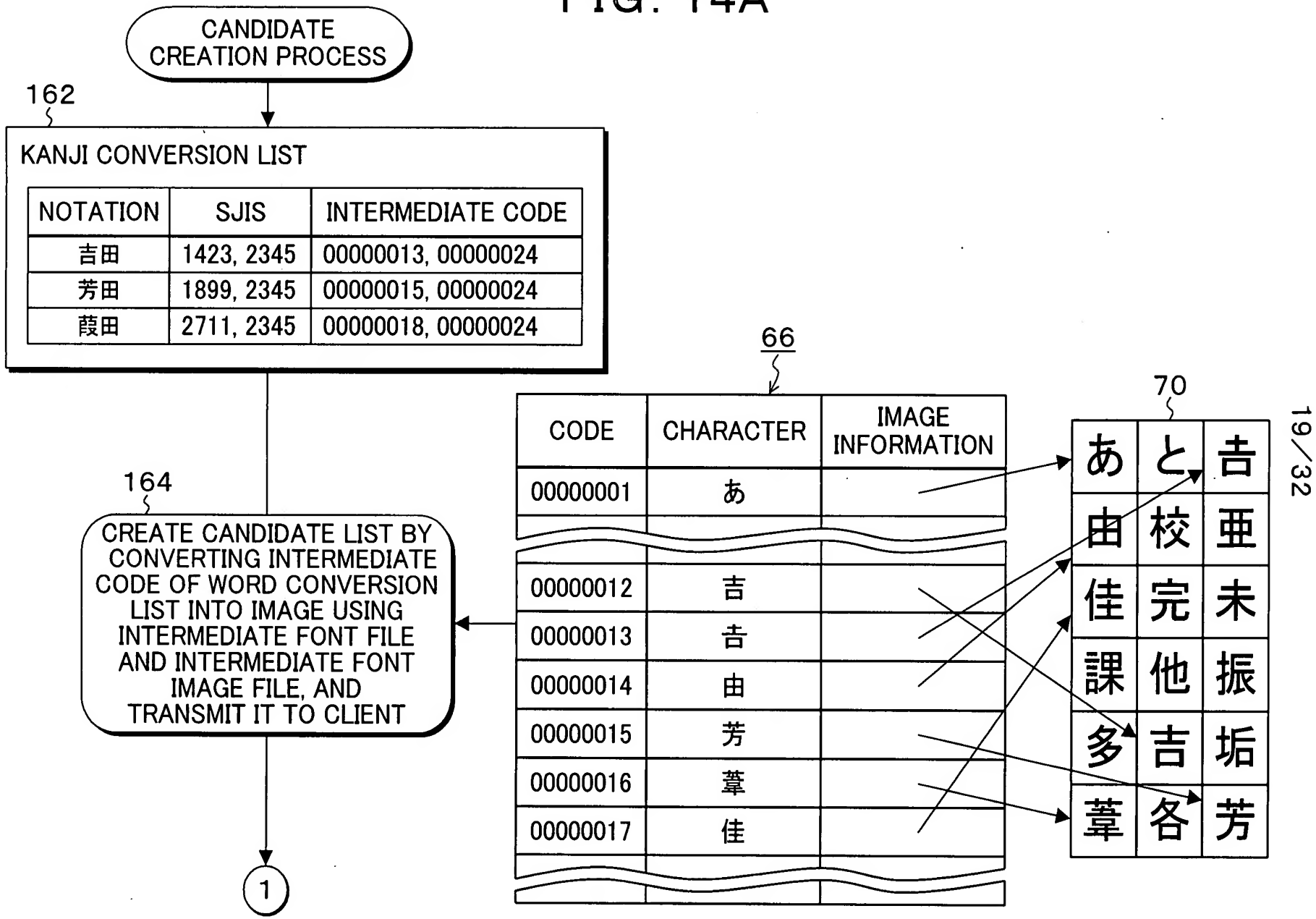

CANDIDATE CREATION PROCESS
162
KANJI CONVERSION LIST
NOTATION | SJIS | INTERMEDIATE CODE
吉田 | 1423, 2345 | 00000013, 00000024
芳田 | 1899, 2345 | 00000015, 00000024
葭田 | 2711, 2345 | 00000018, 00000024
66
CODE | CHARACTER | IMAGE INFORMATION
00000001 | あ
00000012 | 吉
00000013 | 吉
00000014 | 由
00000015 | 芳
00000016 | 葦
00000017 | 佳
70
あ と 吉
由 校 亜
佳 完 未
課 他 振
多 吉 垢
葦 各 芳
164
CREATE CANDIDATE LIST BY CONVERTING INTERMEDIATE CODE OF WORD CONVERSION LIST INTO IMAGE USING INTERMEDIATE FONT FILE AND INTERMEDIATE FONT IMAGE FILE, AND TRANSMIT IT TO CLIENT
1

FIG. 14B

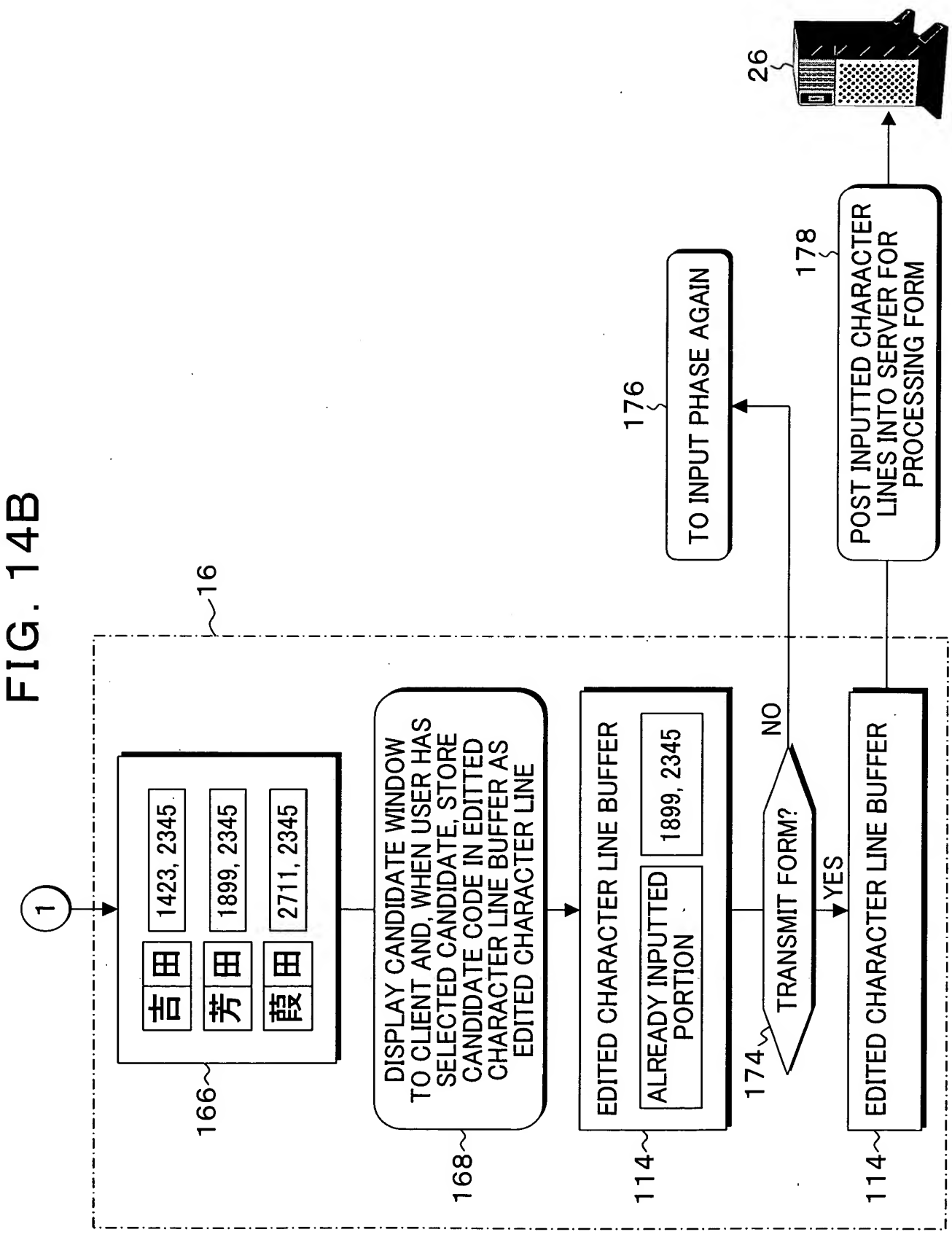

1
16
吉田 1423, 2345
芳田 1899, 2345
鼓田 2711, 2345
166
DISPLAY CANDIDATE WINDOW TO CLIENT AND, WHEN USER HAS SELECTED CANDIDATE, STORE CANDIDATE CODE IN EDITTED CHARACTER LINE BUFFER AS EDITED CHARACTER LINE
168
EDITED CHARACTER LINE BUFFER
ALREADY INPUTTED PORTION
1899, 2345
114
TRANSMIT FORM?
174
NO
YES
TO INPUT PHASE AGAIN
176
EDITED CHARACTER LINE BUFFER
114
POST INPUTTED CHARACTER LINES INTO SERVER FOR PROCESSING FORM
178
26

FIG. 15A

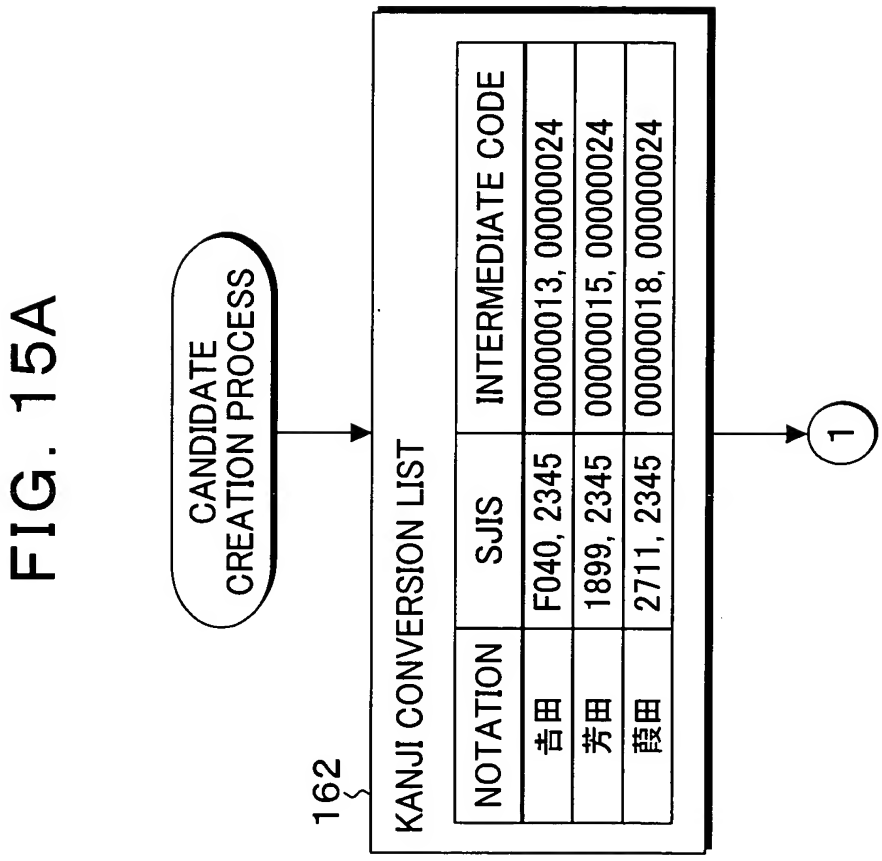

CANDIDATE CREATION PROCESS
162
KANJI CONVERSION LIST
NOTATION
SJIS
INTERMEDIATE CODE
吉田
F040, 2345
00000013, 00000024
芳田
1899, 2345
00000015, 00000024
葭田
2711, 2345
00000018, 00000024
1

FIG. 15B

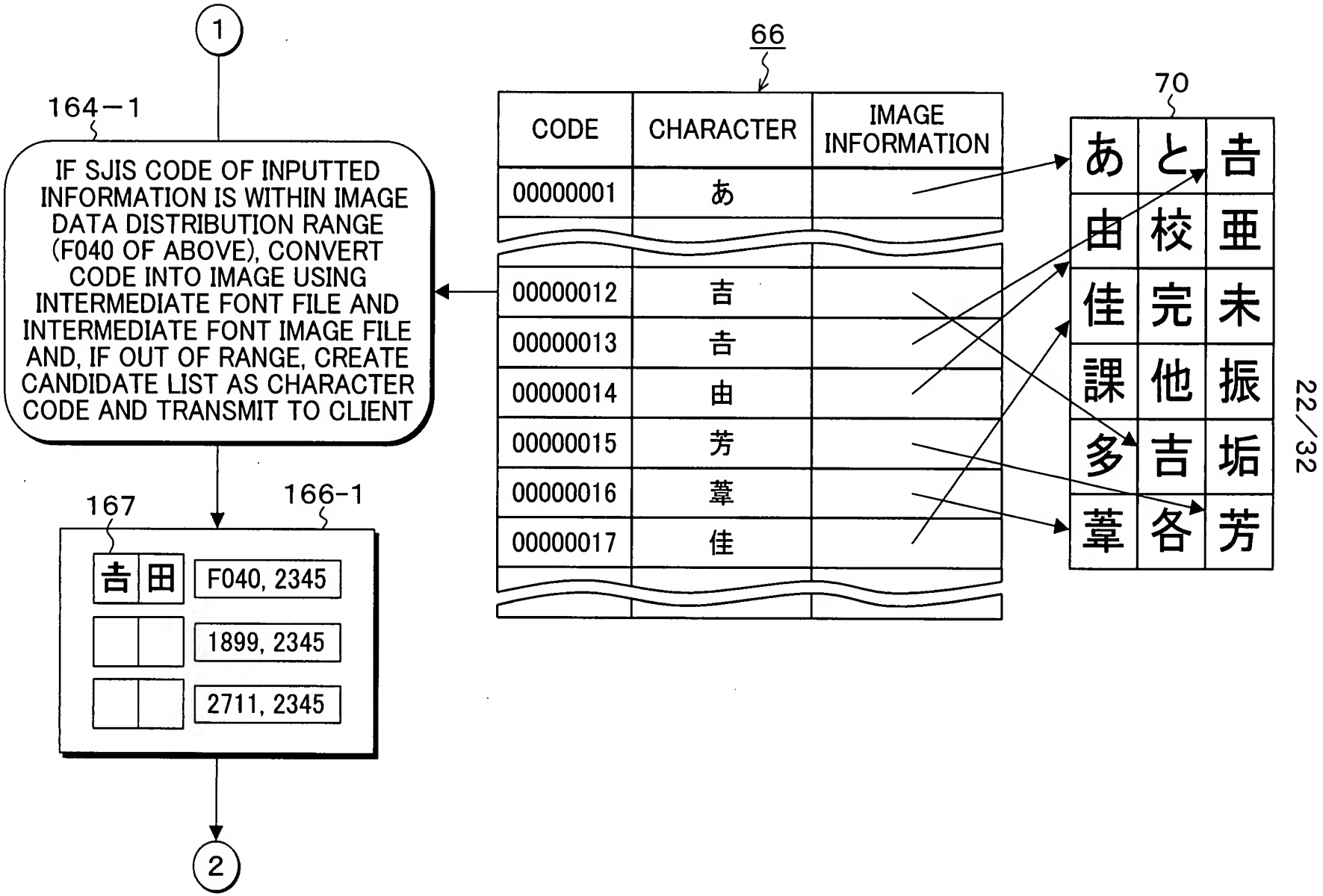

1
164−1
IF SJIS CODE OF INPUTTED INFORMATION IS WITHIN IMAGE DATA DISTRIBUTION RANGE (F040 OF ABOVE), CONVERT CODE INTO IMAGE USING INTERMEDIATE FONT FILE AND INTERMEDIATE FONT IMAGE FILE AND, IF OUT OF RANGE, CREATE CANDIDATE LIST AS CHARACTER CODE AND TRANSMIT TO CLIENT
167
166-1
吉 田
F040, 2345
1899, 2345
2711, 2345
2
66
CODE
CHARACTER
IMAGE INFORMATION
00000001 あ
00000012 吉
00000013 吉
00000014 由
00000015 芳
00000016 葦
00000017 佳
70
あ と 吉
由 校 亜
佳 完 未
課 他 振
多 吉 垢
葦 各 芳

FIG. 15C

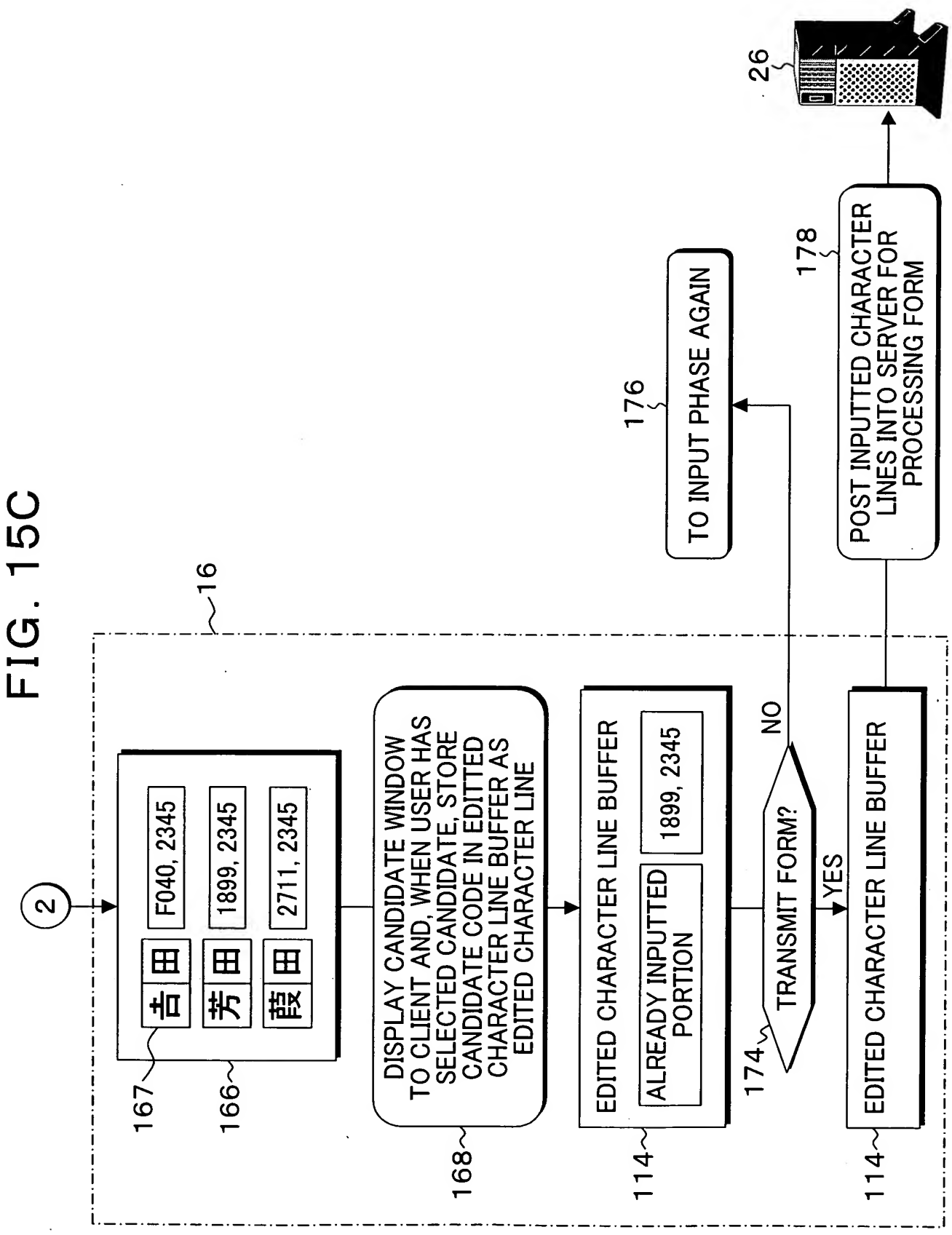

2
16
吉田 F040, 2345
芳田 1899, 2345
葭田 2711, 2345
167
166
DISPLAY CANDIDATE WINDOW TO CLIENT AND, WHEN USER HAS SELECTED CANDIDATE, STORE CANDIDATE CODE IN EDITTED CHARACTER LINE BUFFER AS EDITED CHARACTER LINE
168
EDITED CHARACTER LINE BUFFER
ALREADY INPUTTED PORTION
1899, 2345
114
TRANSMIT FORM?
174
NO
YES
176
TO INPUT PHASE AGAIN
EDITED CHARACTER LINE BUFFER
114
178
POST INPUTTED CHARACTER LINES INTO SERVER FOR PROCESSING FORM
26

FIG. 16A

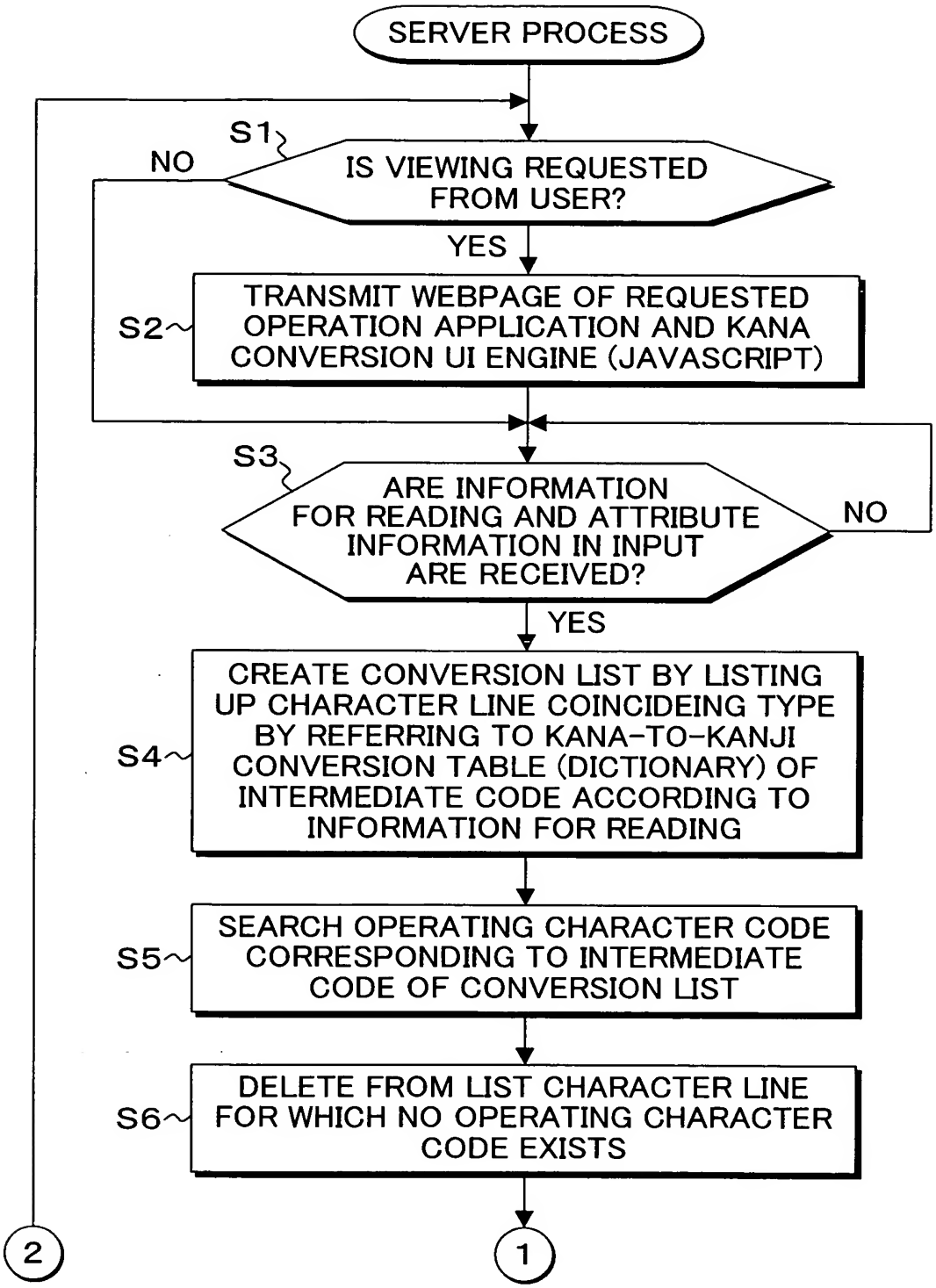

SERVER PROCESS
S1
IS VIEWING REQUESTED FROM USER?
NO
YES
S2
TRANSMIT WEBPAGE OF REQUESTED OPERATION APPLICATION AND KANA CONVERSION UI ENGINE (JAVASCRIPT)
S3
ARE INFORMATION FOR READING AND ATTRIBUTE INFORMATION IN INPUT ARE RECEIVED?
NO
YES
S4
CREATE CONVERSION LIST BY LISTING UP CHARACTER LINE COINCIDEING TYPE BY REFERRING TO KANA-TO-KANJI CONVERSION TABLE (DICTIONARY) OF INTERMEDIATE CODE ACCORDING TO INFORMATION FOR READING
S5
SEARCH OPERATING CHARACTER CODE CORRESPONDING TO INTERMEDIATE CODE OF CONVERSION LIST
S6
DELETE FROM LIST CHARACTER LINE FOR WHICH NO OPERATING CHARACTER CODE EXISTS
2
1

FIG. 16B

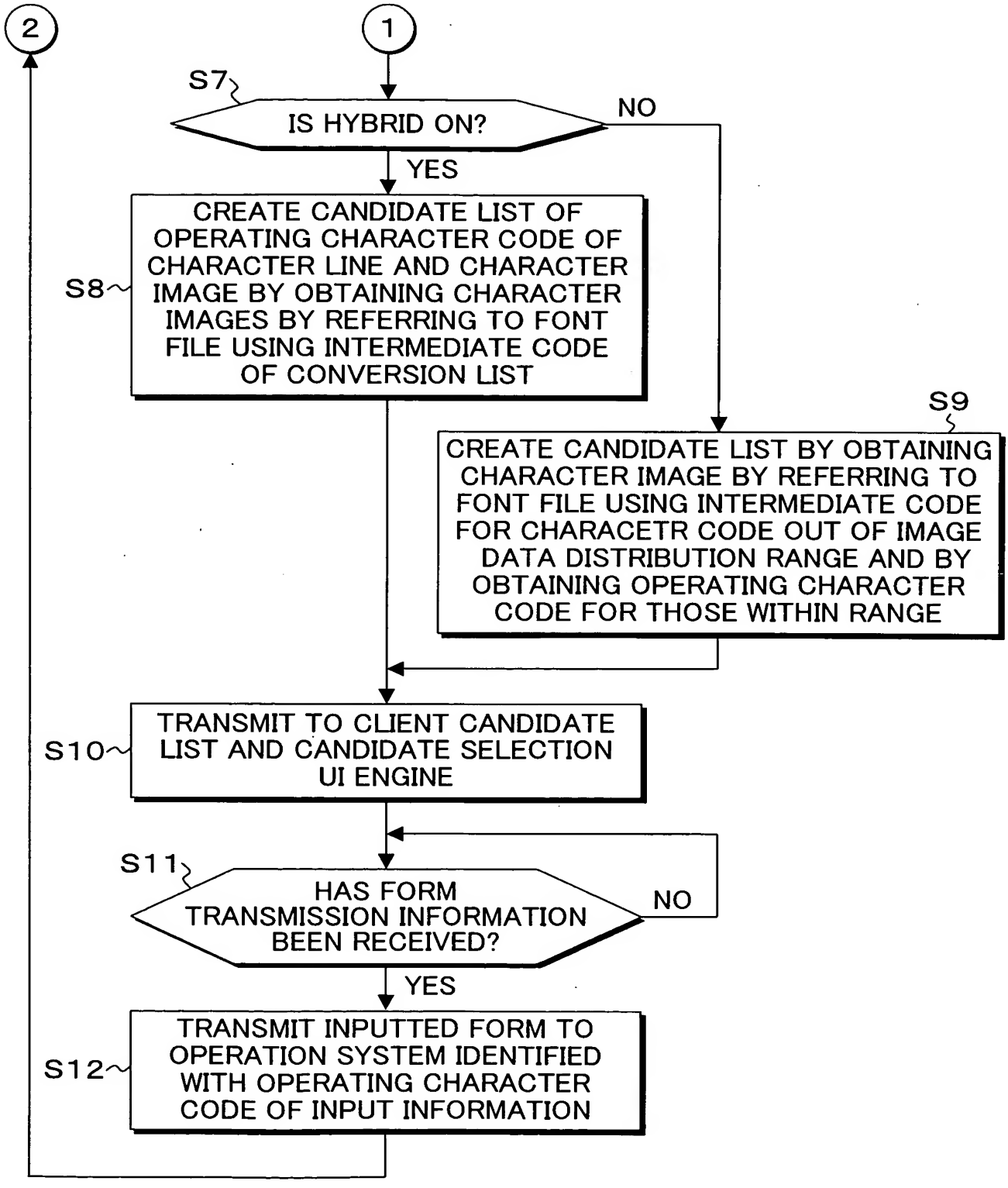

2
1
S7
IS HYBRID ON?
NO
YES
S8
CREATE CANDIDATE LIST OF OPERATING CHARACTER CODE OF CHARACTER LINE AND CHARACTER IMAGE BY OBTAINING CHARACTER IMAGES BY REFERRING TO FONT FILE USING INTERMEDIATE CODE OF CONVERSION LIST
S9
CREATE CANDIDATE LIST BY OBTAINING CHARACTER IMAGE BY REFERRING TO FONT FILE USING INTERMEDIATE CODE FOR CHARACETR CODE OUT OF IMAGE DATA DISTRIBUTION RANGE AND BY OBTAINING OPERATING CHARACTER CODE FOR THOSE WITHIN RANGE
S10
TRANSMIT TO CLIENT CANDIDATE LIST AND CANDIDATE SELECTION UI ENGINE
S11
HAS FORM TRANSMISSION INFORMATION BEEN RECEIVED?
NO
YES
S12
TRANSMIT INPUTTED FORM TO OPERATION SYSTEM IDENTIFIED WITH OPERATING CHARACTER CODE OF INPUT INFORMATION

FIG. 17A

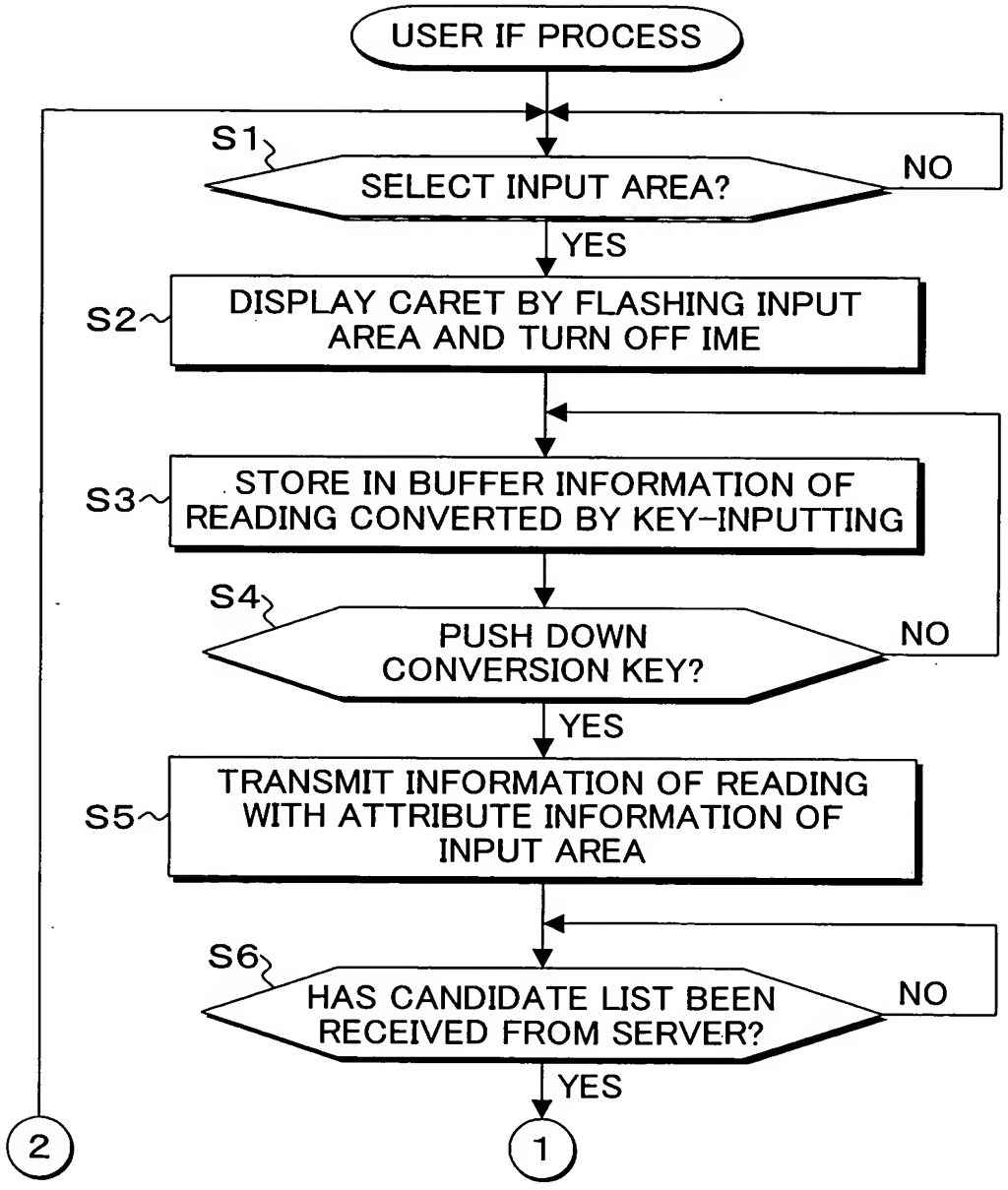

USER IF PROCESS
S1
SELECT INPUT AREA?
NO
YES
S2
DISPLAY CARET BY FLASHING INPUT AREA AND TURN OFF IME
S3
STORE IN BUFFER INFORMATION OF READING CONVERTED BY KEY-INPUTTING
S4
PUSH DOWN CONVERSION KEY?
NO
YES
S5
TRANSMIT INFORMATION OF READING WITH ATTRIBUTE INFORMATION OF INPUT AREA
S6
HAS CANDIDATE LIST BEEN RECEIVED FROM SERVER?
NO
YES
2
1

FIG. 17B

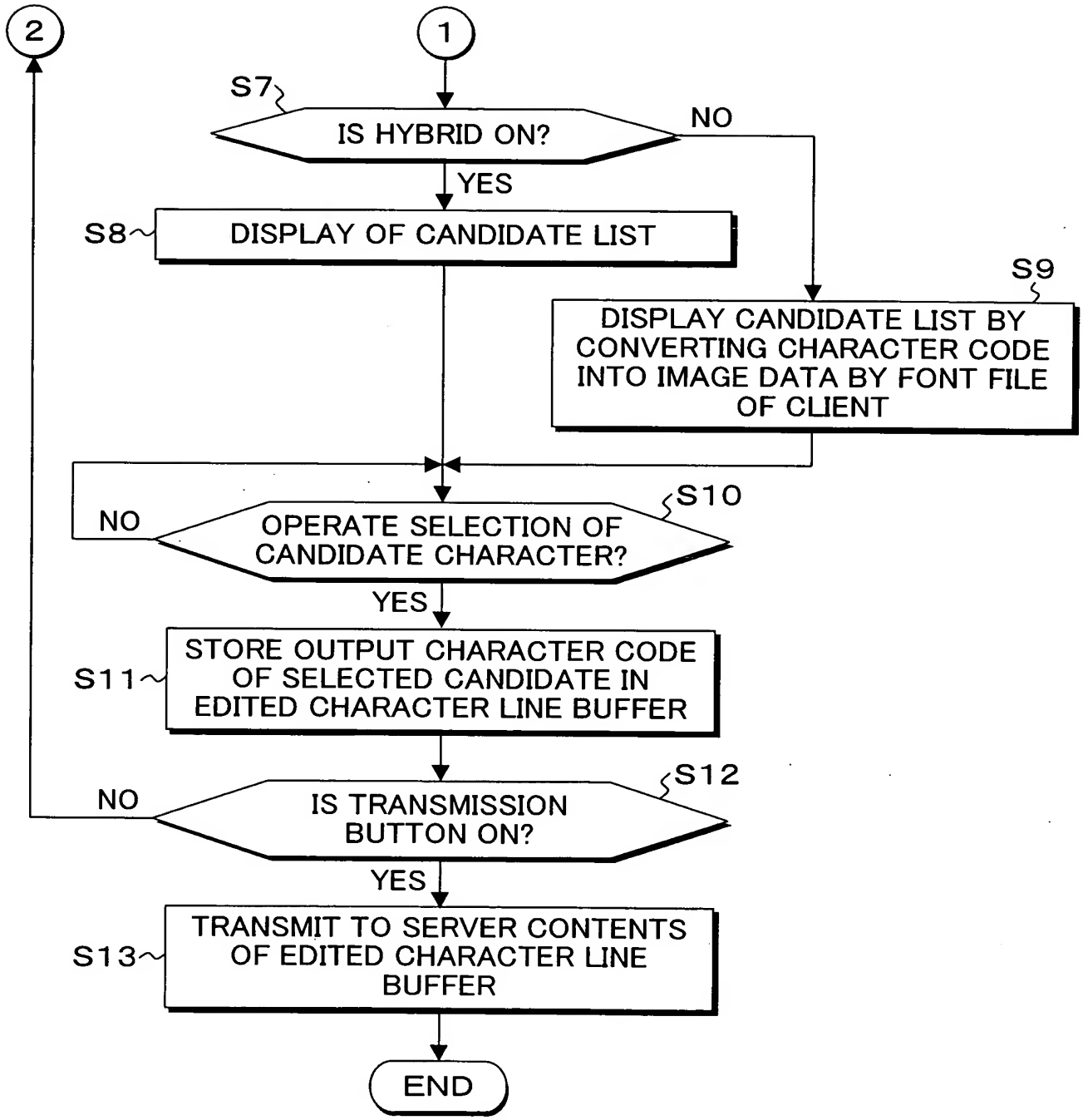

2
1
S7
IS HYBRID ON?
NO
YES
S8
DISPLAY OF CANDIDATE LIST
S9
DISPLAY CANDIDATE LIST BY CONVERTING CHARACTER CODE INTO IMAGE DATA BY FONT FILE OF CLIENT
S10
NO
OPERATE SELECTION OF CANDIDATE CHARACTER?
YES
S11
STORE OUTPUT CHARACTER CODE OF SELECTED CANDIDATE IN EDITED CHARACTER LINE BUFFER
S12
NO
IS TRANSMISSION BUTTON ON?
YES
S13
TRANSMIT TO SERVER CONTENTS OF EDITED CHARACTER LINE BUFFER
END

FIG. 18

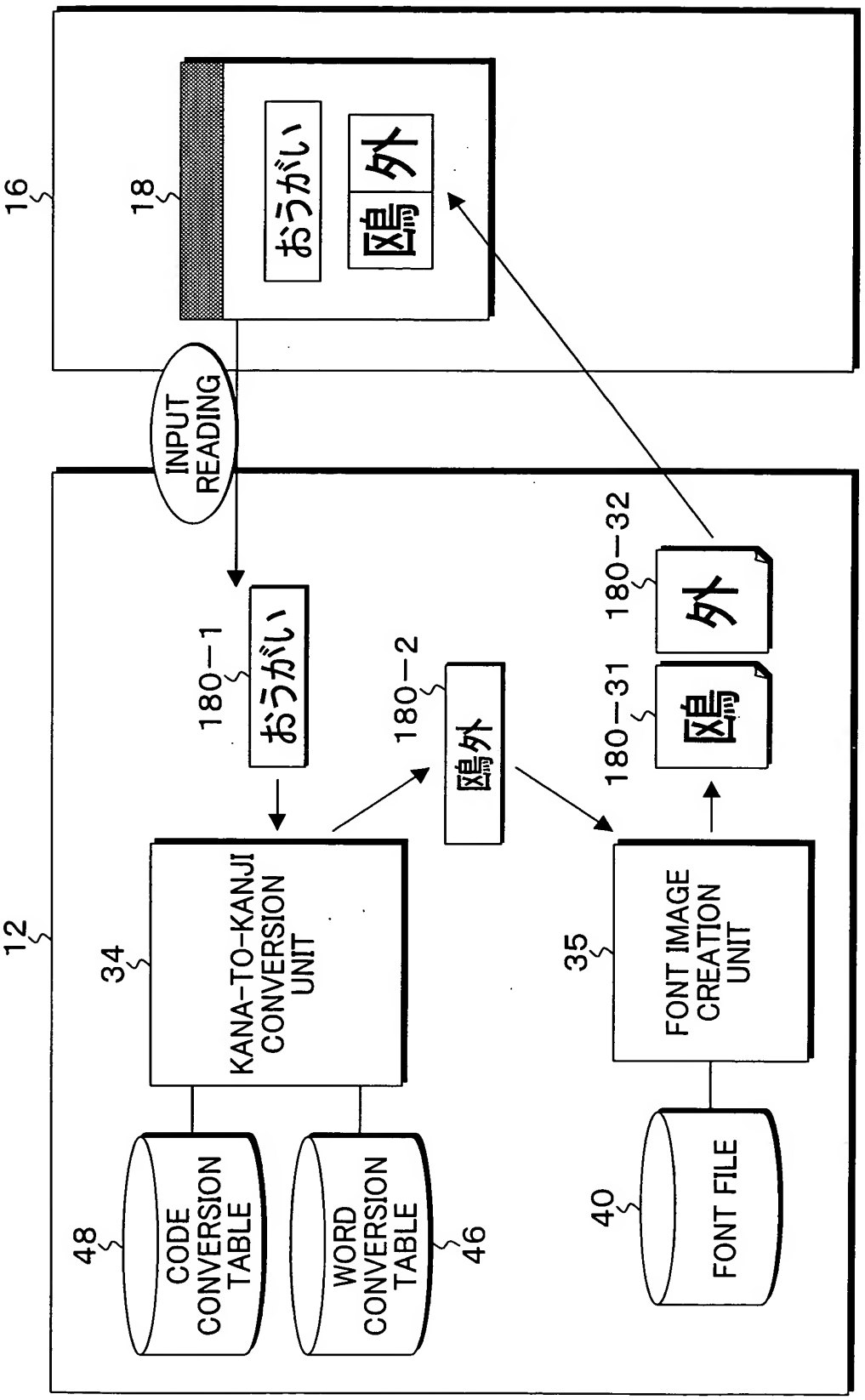

16
18
おうがい
鴎外
INPUT READING
12
180−1
おうがい
180−2
鴎外
180−31
鴎
180−32
外
34
KANA-TO-KANJI CONVERSION UNIT
35
FONT IMAGE CREATION UNIT
48
CODE CONVERSION TABLE
WORD CONVERSION TABLE
46
40
FONT FILE

FIG. 19

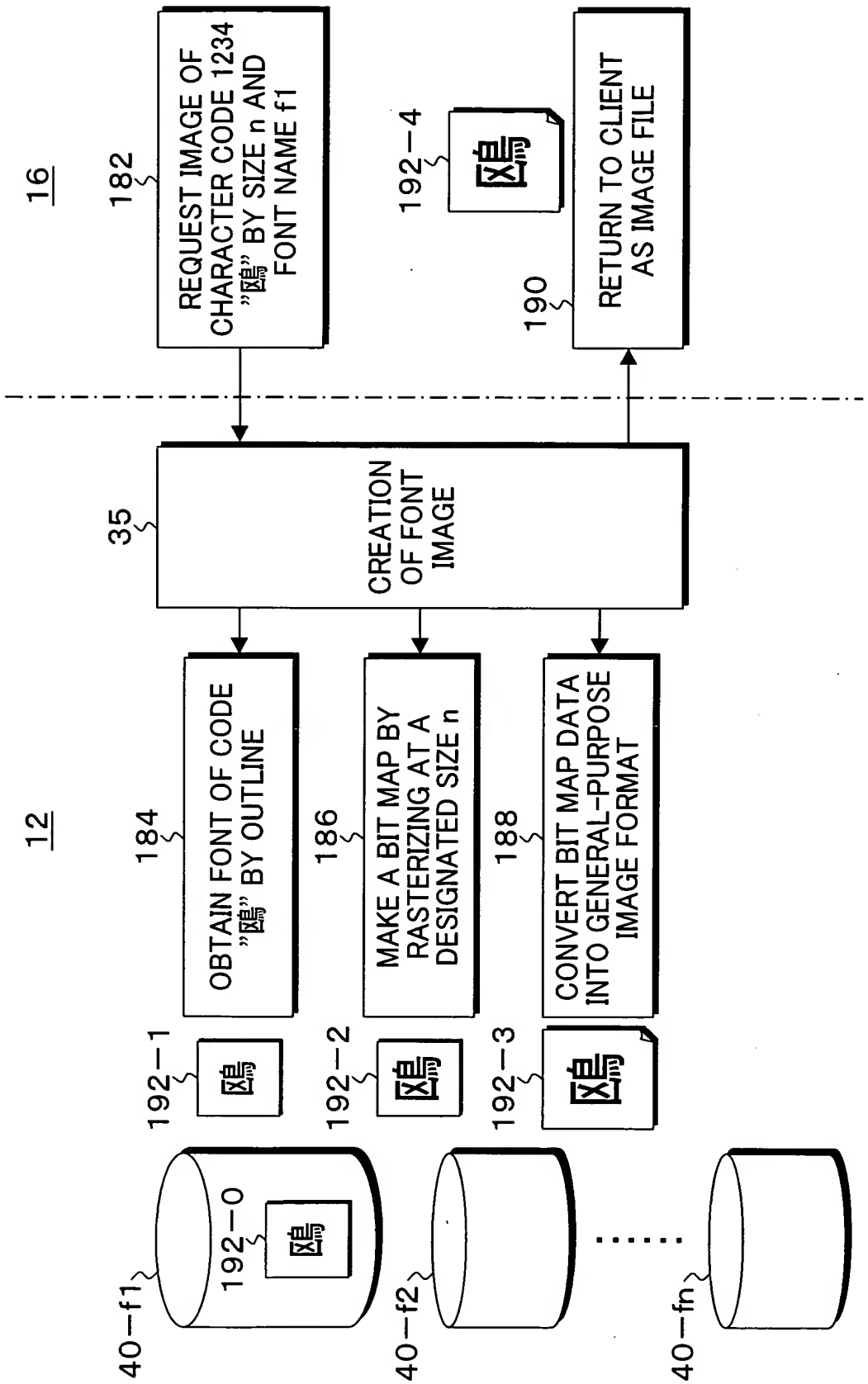

16
182
REQUEST IMAGE OF CHARACTER CODE 1234 "鵺" BY SIZE n AND FONT NAME f1
192-4
鵺
190
RETURN TO CLIENT AS IMAGE FILE
35
CREATION OF FONT IMAGE
12
184
OBTAIN FONT OF CODE "鵺" BY OUTLINE
186
MAKE A BIT MAP BY RASTERIZING AT A DESIGNATED SIZE n
188
CONVERT BIT MAP DATA INTO GENERAL-PURPOSE IMAGE FORMAT
192-1
鵺
192-2
鵺
192-3
鵺
192-0
鵺
40-f1
40-f2
40-fn

FIG. 20

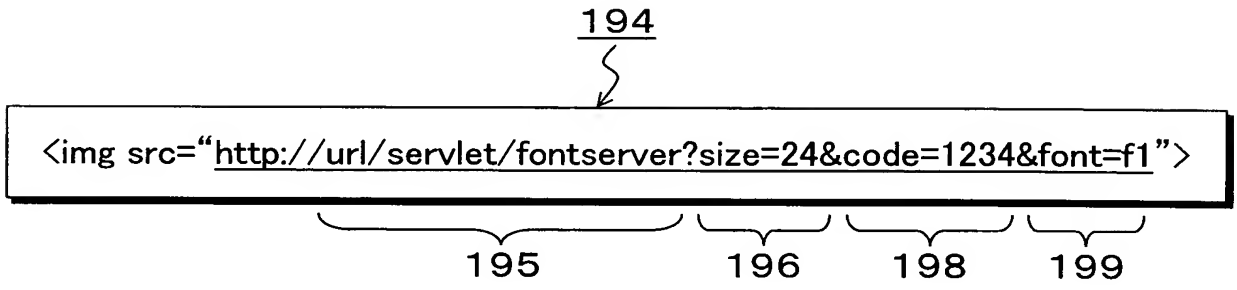

194
<img src="http://url/servlet/fontserver?size=24&code=1234&font=f1">
195
196
198
199

FIG. 21

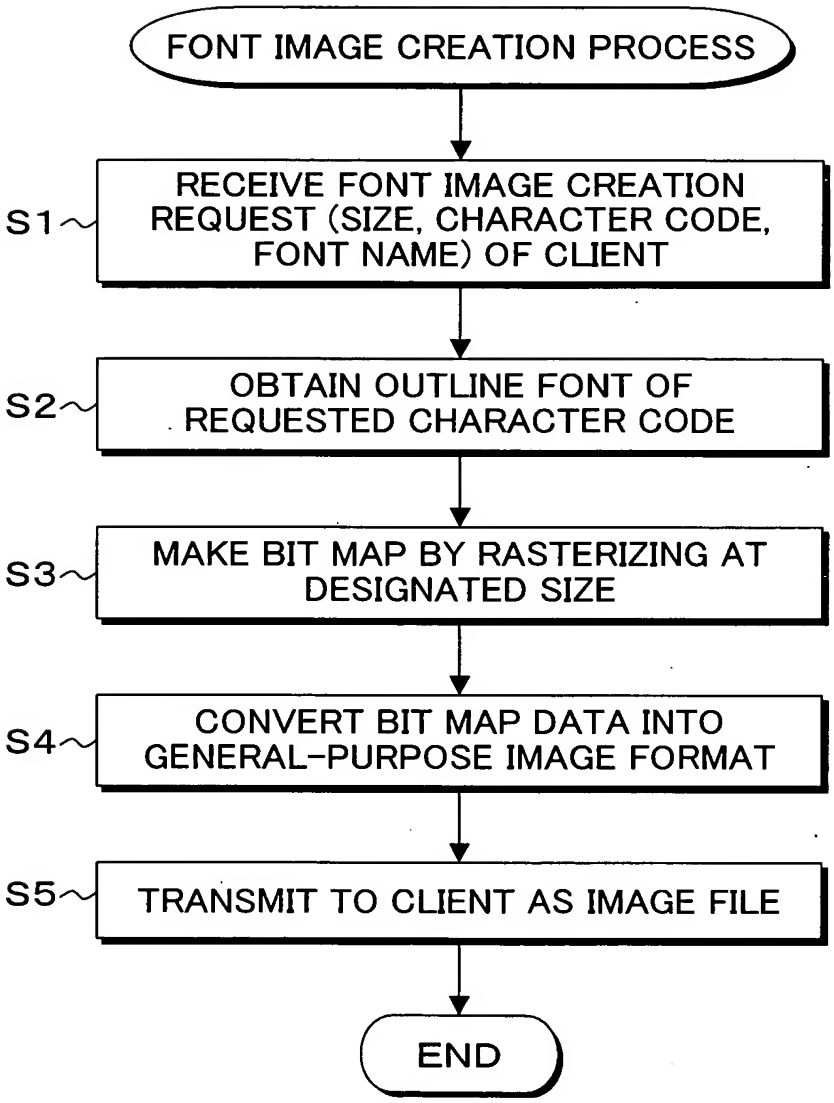
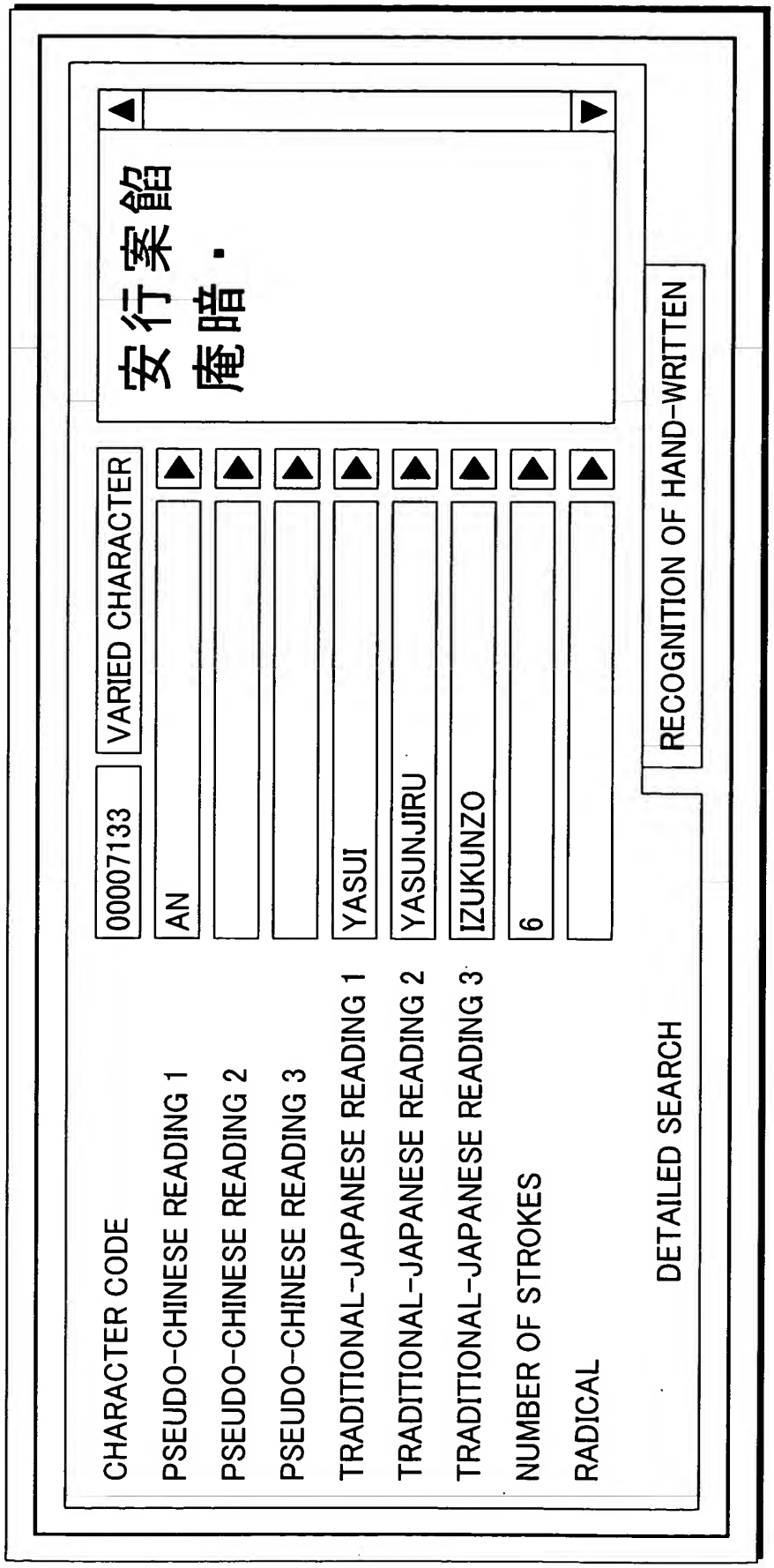

FONT IMAGE CREATION PROCESS
S1
RECEIVE FONT IMAGE CREATION REQUEST (SIZE, CHARACTER CODE, FONT NAME) OF CLIENT
S2
OBTAIN OUTLINE FONT OF REQUESTED CHARACTER CODE
S3
MAKE BIT MAP BY RASTERIZING AT DESIGNATED SIZE
S4
CONVERT BIT MAP DATA INTO GENERAL-PURPOSE IMAGE FORMAT
S5
TRANSMIT TO CLIENT AS IMAGE FILE
END

FIG. 22


CHARACTER CODE
00007133
VARIED CHARACTER
PSEUDO-CHINESE READING 1
AN
PSEUDO-CHINESE READING 2
PSEUDO-CHINESE READING 3
TRADITIONAL-JAPANESE READING 1
YASUI
TRADITIONAL-JAPANESE READING 2
YASUNJIRU
TRADITIONAL-JAPANESE READING 3
IZUKUNZO
NUMBER OF STROKES
6
RADICAL
安行案館
庵暗・
DETAILED SEARCH
RECOGNITION OF HAND-WRITTEN